

LDWSF
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January 15, 2014
File No. 12-137

Mr. William Ernst
Boeing Company
PO Box 3707
Seattle WA 98101

**Re: Geotechnical Recommendations
 Sheet Pile Cofferdam Dredging Enclosure
 Jorgenson Forge Outfall
 Tukwila WA**

Dear Mr. Ernst,

This letter provides recommendations for the design of a sheet pile enclosure to permit the offshore dredging of contaminated sediments to a depth as great as -15 feet (MLLW) at the Jorgenson Forge Outfall (JFO) on the right bank of the Duwamish River (see Figure 1).

INTRODUCTION

The JFO is located at the boundary of the Boeing Plant 2 property and the Jorgenson Forge property as shown in Figure 1. The removal of contaminated sediments below the outfall will require local in water excavations extending to as much as elevation -15 feet. Open cut dredging of the underlying sediments would require relatively flat slopes that would substantially encroach into the Boeing and Jorgenson properties and likely endanger the integrity of an existing contaminant cutoff wall on the Boeing Plant 2 property. Consequently, to minimize the footprint of the dredge prism and to provide containment of water borne contaminated sediments, Boeing and Jorgenson Forge have elected to construct a temporary sheet pile cofferdam in the Duwamish to allow the safe removal of the contaminated sediments.

The purpose of this report is to provide geotechnical parameters for the design of the sheet pile cofferdam. Because the cofferdam will be installed during a fish window in February of 2014 and the dredging may be accomplished by a separate contractor between March and August of 2014, the objectives of the cofferdam design were to provide simplicity of construction without internal or external support. To meet these goals, the design required constraints on the ground surface level immediately behind the wall, a no load restriction during dredging behind the wall,

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and finally a requirement of maintaining a water level close to the top of the cofferdam during dredging and backfilling operations. Design recommendations for the cofferdam are summarized below.

SUBSURFACE CONDITIONS

Subsurface conditions underlying the cofferdam were inferred from the results of existing borings drilled nearby at the approximate locations shown in Figure 2. Figure 2 also shows the approximate footprint of the temporary cofferdam and the existing sheet pile containment wall on the adjacent Boeing property.

Subsurface conditions underlying the footprint of the cofferdam likely include up to about 10 feet of concrete rubble fill on the upland side overlying Duwamish alluvial sediments consisting of silty sands that extend to depths in excess of 80 feet. The logs of nearby borings, which are presented in Figures 2 thru 5, indicate that the alluvial sands are generally medium dense. However, the log for boring PL2-008C (Figure 5) indicates that the alluvium is very dense below a depth of about 40 feet. Although not stated on this boring log, the samples may have been obtained with an oversized sampler that may not represent true Standard Penetration Test (SPT) results.

Finally, obstructions are expected along the on shore and portions of the offshore alignment. The photos below depict the rubble fill that may be encountered. As evident in the photos, other obstructions, such as timber piles, may be encountered near the shoreline



Boeing Duwamish Sediment Other Area Shoreline

Sheet piles that were driven for the Boeing contaminant wall encountered some obstructions at the northwest corner of the wall in the area between borings PL2-030C and PL2-008C as shown on Figure 2. These obstructions, which were encountered at a depth of about 48 feet, were

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presumed to be logs (Roy F. Weston, 1995). The WZ 75 driven sheets for the wall could not penetrate the obstructions and were terminated short of design depth.

Groundwater in the upland area is generally present at about elevation +12 feet (MLLW) or about 8 feet below the level ground surface on the Boeing property to the north. The groundwater surface is expected to be depressed near the shoreline and fluctuate with the tide levels.

DESIGN & OPERATIONAL CONSTRAINTS

Design recommendations for the cofferdam were developed for the following constraints to avoid internal bracing or external restraint of the cofferdam:

- **Top Wall Elevation:** +15 feet (MLLW)
- **Upland Soil Elevation:** +12 feet (MLLW) behind wall to a distance of 20 feet or the Boeing containment wall during contaminant dredging and backfilling. Beyond 20 feet or at the edge of the Boeing containment wall, the ground surface shall be sloped at 1:1 to reach existing grade.
- **Surcharge:** No surcharge load permitted behind wall in benched area during contaminant dredging and backfilling
- **Cofferdam Internal Water Level:** During contaminant dredging and backfilling, maintain a water head at a minimum elevation of +11 feet (MLLW); that is, all excavation and backfilling must be conducted in the wet; otherwise no constraints. Steady state water loss within the cofferdam during dredging is estimated at about 200 gpm. Pumps with higher capacities should be used considering the rate at which dredged material is removed
- **Debris Removal:** Near surface debris that obstructs the sheet pile installation should be moved and placed inside of the footprint of the cofferdam

LATERAL EARTH PRESSURES

The design of the cofferdam will be controlled by loading on the upland (shoreline) corresponding to the dredged condition where contaminant removal will extend to elevation -15 feet at the inside face of the wall. The following lateral earth pressures are recommended for the wall assuming a water table at +11 feet on the upland side of the wall and a water surface within the cofferdam during dredging and backfilling at elevation +11 feet or higher:

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- Active Earth Pressure:
 - 35 pcf (Top wall or ground surface to El. +11, which is the assumed water table behind the wall)
 - 17 pcf (Effective equivalent unit weight below water table or below El. +11)
- Passive Earth Pressure:
 - 300 pcf (Effective equivalent unit weight below design dredge level of -15 feet); passive includes a factor of safety of about 1.3

ADDITIONAL SERVICES

We recommend that PanGEO be retained to be present during the driving of the sheet piles to confirm subsurface conditions and assess potential actions that may be needed in the event that obstructions are encountered. We also recommend that PanGEO be present on a full time basis during the dredging and backfilling of the cofferdam to confirm the performance of the cofferdam conforms to design predictions or a maximum deflection of up to 4 inches. Deflections approaching this values may require quick remedial action to maintain the integrity of the wall.

We trust that the above addresses your needs at this time. Please call with any questions on this report.

Sincerely,

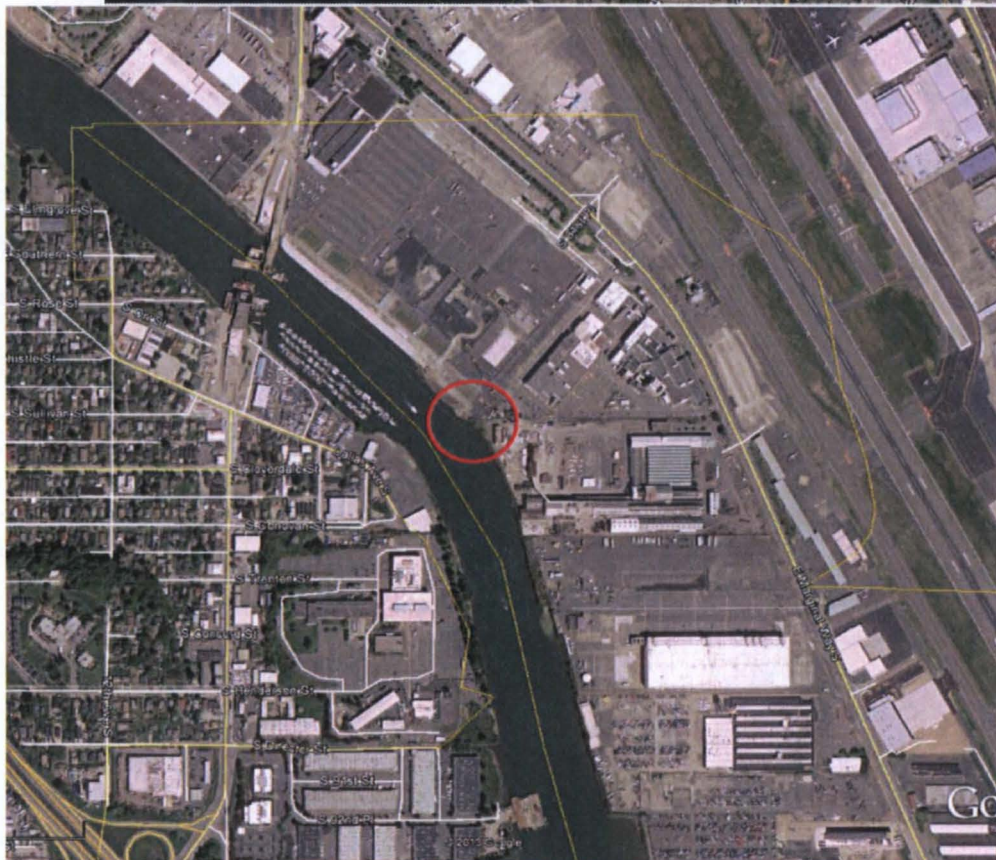


W. Paul Grant, P.E.
Principal Geotechnical Engineer

Enclosures: Figure 1 – Vicinity Map
Figure 2 – Site and Exploration Plan
Figure 3 – Log of Boring PL2-JF01C
Figure 4 – Log of Boring PL2-303C
Figure 5 – Log of Boring PL2-008C

REFERENCES

Weston, Roy F, 1995, Construction completion report, interim corrective action, Buildings 2-10 and 2-66, Boeing Plant 2, Seattle/Tukwila, Washington: Report to the Boeing Company, February



PanGEO
INCORPORATED

**Source Control Action
Jorgensen Forge Outfall
Seattle, Washington**

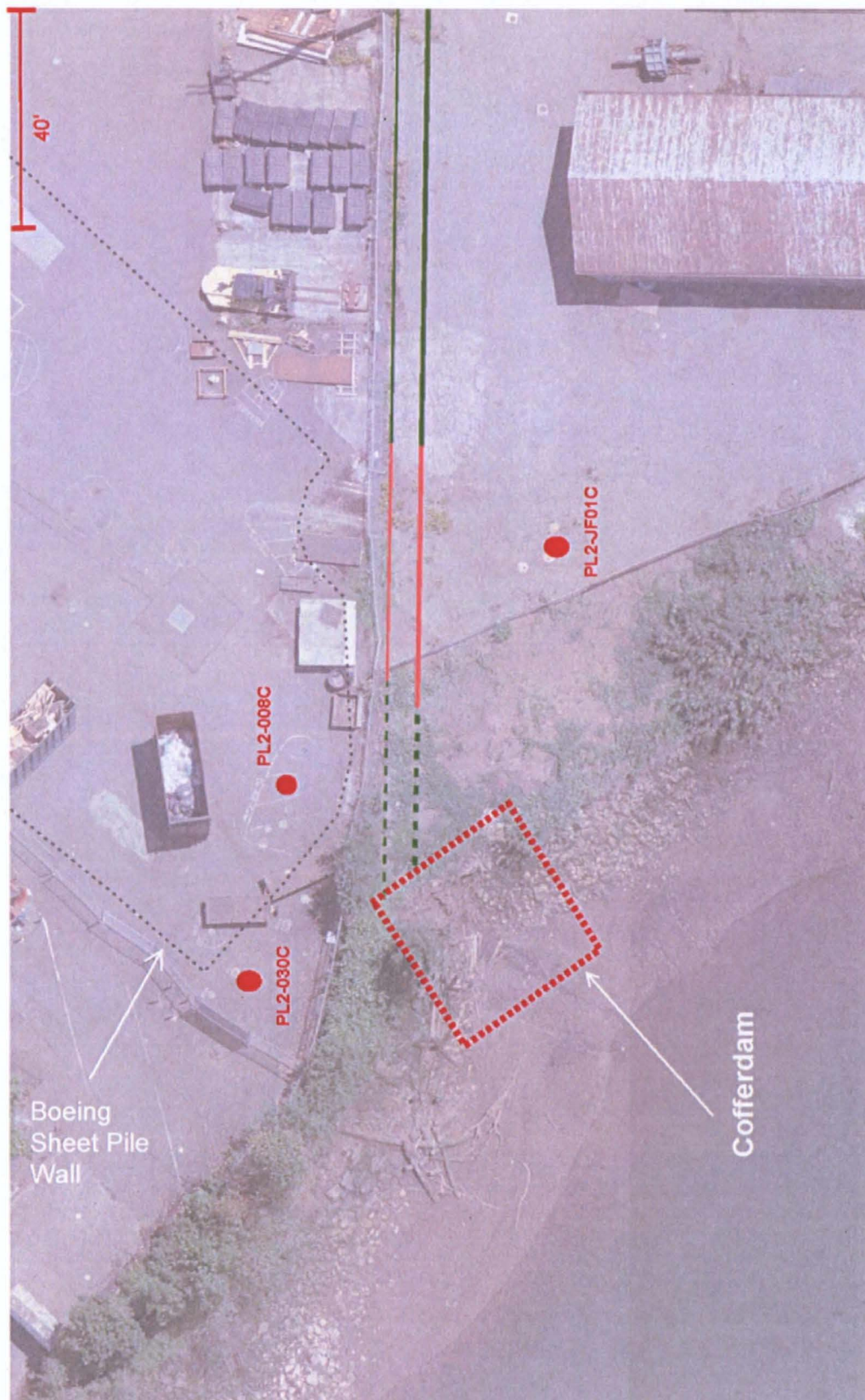
VICINITY MAP

Project No.

12-137

Figure No.

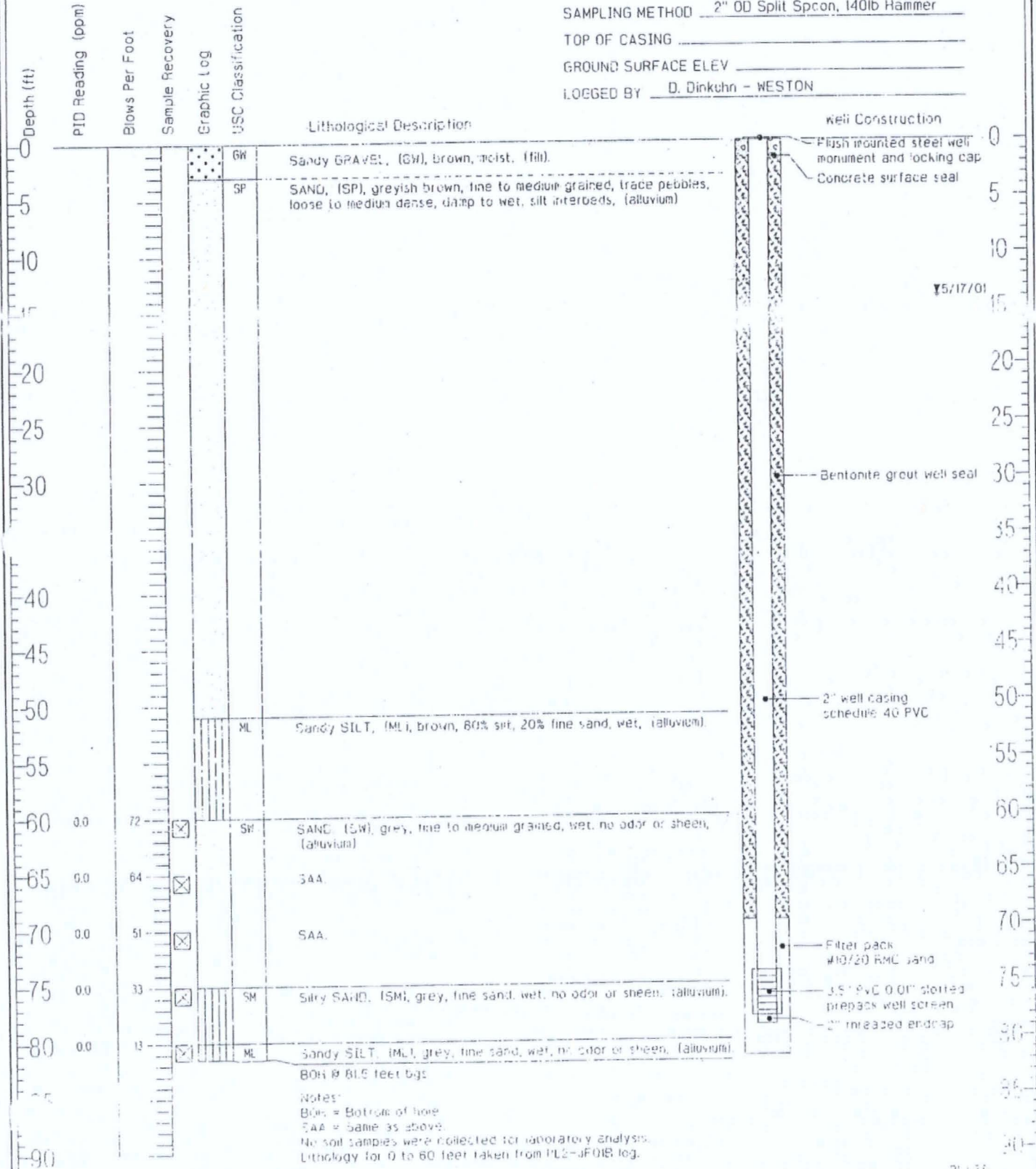
1





MONITORING WELL PL2-JF01C

PROJECT Boeing - Plant 2
DATE COMPLETED 9 May 2001
DRILLING METHOD 8" OD HSA - GeoTech Explorations
SAMPLING METHOD 2" OD Split Spoon, 140lb Hammer
TOP OF CASING _____
GROUND SURFACE ELEV _____
LOGGED BY D. Dinkuhn - WESTON



WESTON
MANAGERS OF DESIGNERS CONSULTANTS

LOGGED BY K. Broom - WESTON



MONITORING WELL PL2SW-MW8C

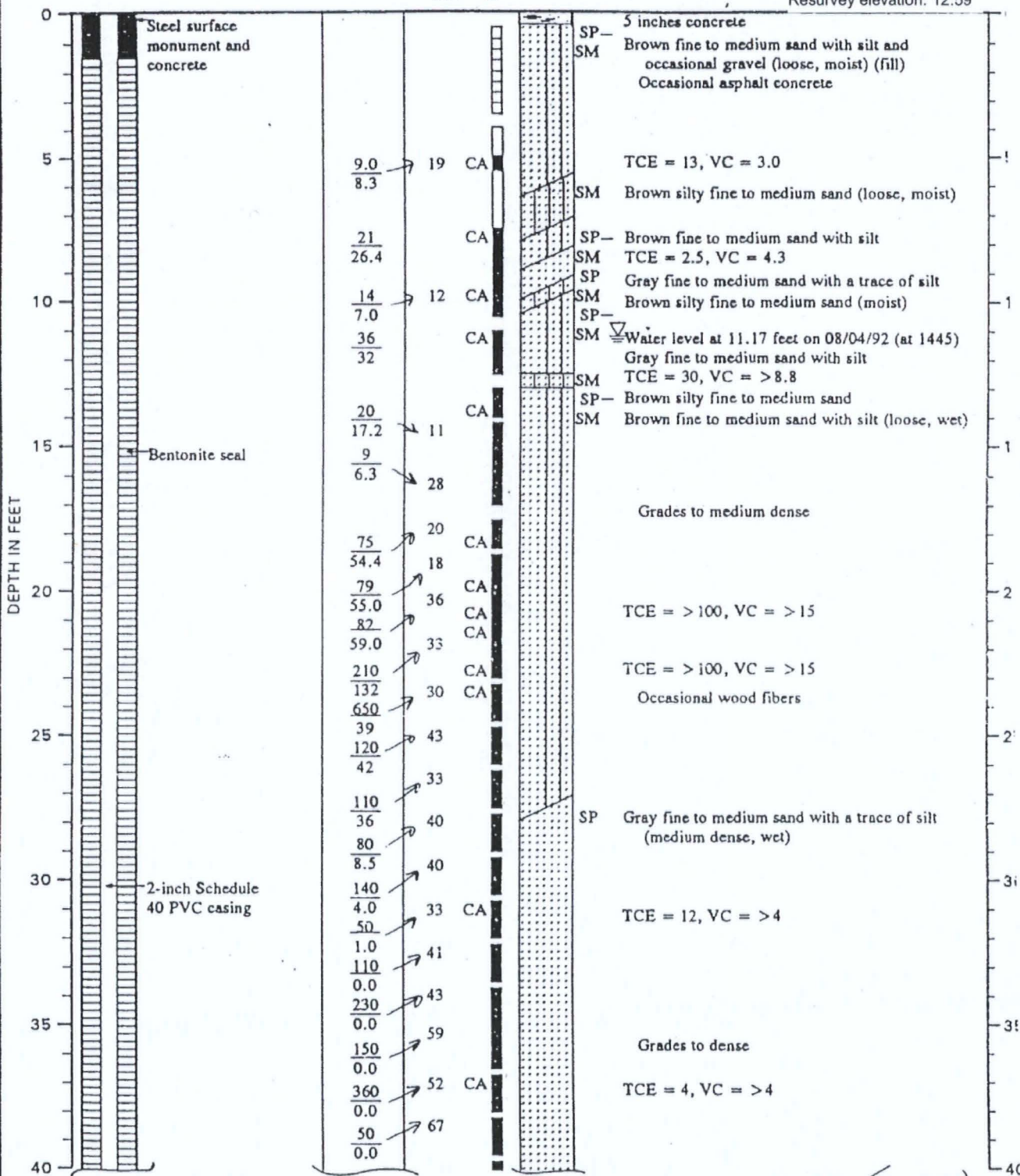
PL2-000C

WELL SCHEMATIC

Casing Elevation (ft.): 12.47
Casing Stickup (ft.): -0.36
Vapor Conc. (ppm)
OVA
PID

DESCRIPTION

Surface Elevation (ft.): 12.83
Resurvey elevation: 12.59



Note: See Figure A-2 for explanation of symbols

See Figure A-35 for explanation of typical deep 2-inch diameter monitoring well construction

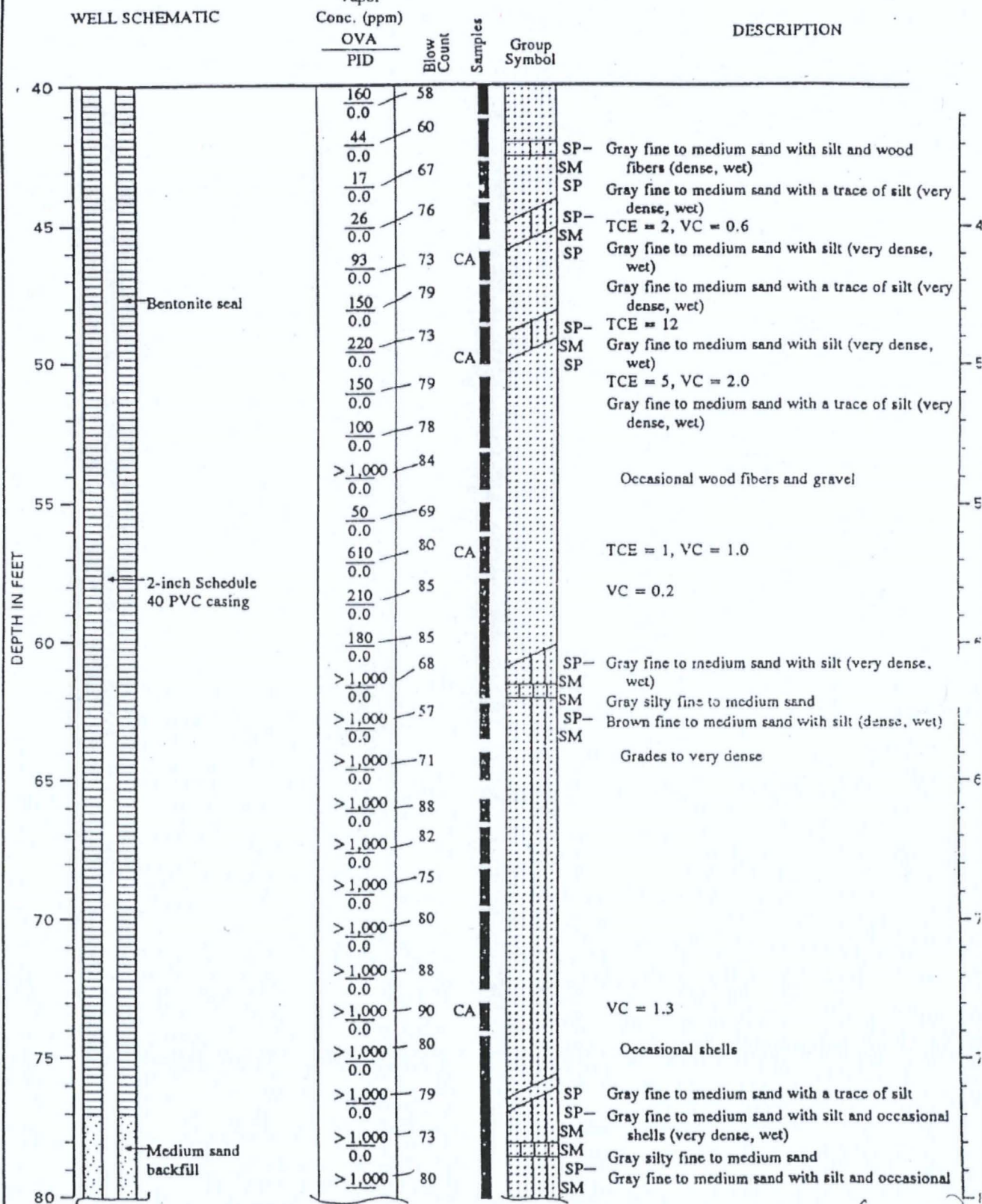
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LOG OF MONITORING WELL

FIGURE A-10a

MONITORING WELL PL2SW-MW8C (Continued)



Note: See Figure A-2 for explanation of symbols

See Figure A-35 for explanation of typical deep 2-inch diameter monitoring well construction

(20+3)
MK 24

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LOG OF MONITORING WELL

FIGURE A-10b

(Continued)

$$\frac{\text{Vapor Conc. (ppm)}}{\text{OVA}} = \text{PID}$$

Blow Count	Samples	Group Symbol
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See Figure A-35 for explanation of typical deep 2-inch diameter monitoring well construction

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MR 7/18/

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Sheet 5
Sheet 3 of 3

0120-149-R14

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PROCUREMENT AND CONTRACTING REQUIREMENTS

Division 00 – Procurement and Contracting Requirements

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Section 312300 – Excavation and Stockpiling

Section 315200 – Steel Sheet Pile

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Section 354300 – Scour Protection

ATTACHMENTS

Select Geotechnical Information

Final Basis of Design Report

Existing Boeing Sheet Pile Wall Information

Administrative Orders

Jorgensen Forge Corporation Health and Safety Plan

END OF SECTION

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 001113—Advertisement For Proposals

The JORGENSEN FORGE CORPORATION is currently accepting sealed proposals for construction of the following:

**JORGENSEN FORGE OUTFALL SITE PROJECT –
SSP INSTALLATION**

The work required for this project as shown in the drawings and described in the specifications includes installation of an in-river sheet pile enclosure (Design Option 1) or installation of a shoreline wall (Design Option 2).

Proposals will be received at the The Intelligence Group, 443 North Franklin Street, Suite 220, Syracuse, NY 13204 until 5:00 p.m. PST on January 29, 2014.

Bob Romagnoli, P.E. is the Project Manager, telephone number (315) 254-2712, email bromagnoli@intell-group.com

Each proposal must be accompanied by a Certified Check or Proposal Security in an amount equal to five (5) percent of the proposal.

Drawings, Specifications and Addenda will be sent directly to you.

END OF SECTION

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PART 1 – PROPOSAL REQUIREMENTS

1.01 EXAMINATION OF CONTRACT DOCUMENTS AND REGULATIONS

- A. The Bidder shall examine the Contract Documents and any other data made available to the Bidder relating to all services, labor, materials, equipment, and incidentals necessary to successfully complete the Work and service required by or reasonably inferable from the Contract Documents, including all materials and equipment to be incorporated in the construction (the Work), and shall comply with all instructions and provisions. The Bidder shall promptly notify Jorgensen Forge of ambiguities, inconsistencies, or errors, if any, which it may discover upon examination of the Contract Documents and any other data made available to the Bidder relating to the Work. The submission of a Proposal shall constitute an acknowledgement upon which the Owner may rely that the Bidder has thoroughly examined and is familiar with the Contract Documents and has reviewed all applicable federal, state, and local statutes, regulations, ordinances and environmental documents relating to the Work and all permits which have been applied for and/or issued pertaining to the Work. The failure or neglect of a Bidder to examine any of the Contract Documents, statutes, regulations, ordinances, environmental documents, or permits shall not relieve the Bidder from any obligations with respect to the Contract Documents or the Work.
- B. The Bidder shall verify that all documents provided by the Owner, and upon which the Bidder is basing its Proposal, are full and complete with no missing pages, sheets or unintentional blank spaces. Submittal of a Proposal indicates the Bidder has verified it has obtained all Owner-supplied Contract Documents. No claim for additional work due to missing Proposal information will be considered.

1.02 INSPECTION OF WORK SITE

- A. The Bidder shall inspect and compare the Work Site and Contract Documents to evaluate the location of the Work, the actual physical conditions of the site, and surface and subsurface conditions ordinarily encountered and generally recognized as inherent in the Work. Bidder shall obtain written permission from the Owner prior to entering the Work Site or conducting physical testing of the Work Site.
- B. If the Bidder finds facts or conditions that appear to conflict with the Contract Documents or with any other data made available to the Bidder relating to the Work, the Bidder shall promptly notify the Owner in writing.

1.03 CLARIFICATION OF CONTRACT DOCUMENTS

- A. Requests for interpretation or reports of ambiguities shall be made in writing and delivered to the Owner at least 3 calendar days before the Proposal submittal

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deadline. Clarifications, interpretations, or supplemental instructions that change the scope of work and or schedule described in the contract documents, will be issued only in the form of written addenda. All addenda shall become part of the Contract Documents and any subsequently awarded Contract.

- B. Addenda will be forwarded directly to bidders prior to the Proposal submittal deadline.
- C. Each Bidder shall acknowledge all addenda issued on its Proposal. If such acknowledgement is not made, the Owner reserves the right to show constructive notice through delivery records or the Bidder's use of information contained in the addenda.
- D. Bidders shall not rely upon any oral statements or conversations, whether at the pre-bid conference or otherwise, that they may have with the Owner employees, agents, or representatives regarding the Contract Documents. No oral clarification or interpretations will be made to any Bidder as to the meaning of the Contract Documents.

1.04 ALTERNATIVE APPROACHES

- A. In addition to the designed approach, Bidders may propose an alternative approach to the Owner for consideration as part of their Proposal. Alternative approaches shall be clearly identified as such in the Bidder's Proposal and shall fully detail how the alternative meets the complete requirements of the Contract Documents. A detailed breakdown of the alternative cost, along with the means and methods, shall be provided within the Bidder's Proposal.
- B. The Bidder is responsible for presenting any alternative in a format that clearly follows the Proposal Bid Form and requirements in Section 004143, and allows for a direct comparison of costs to the Bid Items listed in the Proposal Bid Form. Bidders shall be aware that the Owner reserves the right to immediately reject any alternative Proposal at the Owner's sole discretion and without explanation. Time and effort involved in submittal of an alternative by any Bidder shall be at the sole risk of the Bidder.

PART 2 – PREPARATION AND SUBMITTAL OF PROPOSALS

2.01 FORM OF PROPOSAL

- A. Proposals shall be submitted on the form provided by the Owner in Section 004143.
- B. All blanks on the Proposal Forms shall be filled in by ink or typed.
- C. Alterations, erasures, or interlineations within the blanks, if any, shall be in ink and initialed by the signer of the Bid.

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- D. The Bidder shall make no deletions, additional conditions, or stipulations on the Bid Form or qualify its Proposal in any manner.

2.02 BID PRICE

- A. All prices on the Proposal Bid Form shall be in U.S. dollars.
- B. The price on the Proposal Bid Form for that element of Work shall include everything necessary for the prosecution and completion of the Work in accordance with the Contract Documents, including but not limited to furnishing all materials, equipment, tools, transportation, plant, and other facilities and all management, superintendence, labor and services, and field design, except as may be otherwise provided in the Contract Documents.
- C. Estimated quantities, if any, set forth on the Proposal Bid Form are estimates only, being given only as a basis for the comparison of Proposals, and the Owner does not warrant, expressly or by implication, that the actual amount of work will correspond to the estimated quantities. The Owner reserves the right to increase or decrease the amount of any class or portion of the Work and to make changes in the Work, as the Owner may deem necessary or appropriate. The basis of payment for unit-price Bid Items for which estimated quantities were set forth on the Proposal Bid Form shall be the actual number of unit items provided or performed under this Contract. In the event of a 20 percent quantity increase or decrease, the unit price may be adjusted as provided in the General Conditions.
- D. Prices shall be expressed in figures only.

2.03 TAXES

- A. The Work to be performed under this Contract constitutes "retail sale" as such term is defined in Revised Code of Washington (RCW) 82.04.050. The prices on the Proposal Bid Form shall not include state or local retail sales taxes, except that the Contractor will pay retail sales tax on all consumables used during the performance of the Work and on all items that are not incorporated into the final work, for which tax shall be included in the prices on the Proposal Bid Form. The Owner will pay state and local retail sales tax on each progress payment and final payment to the Contractor for transmittal by the Contractor to the Washington State Department of Revenue or to the applicable local government.
- B. No increase will be made in the amount to be paid by the Owner under this Contract because of any misunderstanding by or lack of knowledge of the Contractor as to liability for, or the amount of, any taxes for which the Contractor is liable or responsible by law or under this Contract.

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- C. Sales tax shall be shown as a separate item on the Proposal Bid Form. In any case where it is not included as a separate item, the Owner will add the sales tax to the total of the Proposal prices shown.

2.04 BIDDER'S NAME AND SIGNATURE

- A. The Proposal Bid Form shall include the legal name and contractor registration number of the Bidder and shall indicate whether Bidder is a sole proprietor, a partnership, a corporation, joint venture, or other legal entity. The Proposal Bid Form shall be signed by a person legally authorized to bind the Bidder to a contract and shall indicate the Bidder's address. A Proposal Bid Form signed by an agent shall have a current power of attorney attached certifying agent's authority to bind the Bidder. Upon request of the Owner, the Bidder shall provide corporate or partnership documentation evidencing the Bidder's legal status and showing the authority of the person signing the Proposal Bid Form to execute contracts on behalf of the Bidder.

2.05 PROPOSED SUBCONTRACTORS

- A. The Owner encourages and supports the use of Minority- and Women-owned Business Enterprises (M/WBE) subcontractors and suppliers on all work.
- B. The Bidder shall list on the Proposal Bid Form the name of each subcontractor to whom the Bidder proposes to directly subcontract. The Bidder shall not list more than one subcontractor for each category of work identified unless subcontractors vary with Proposal alternates, in which case the Bidder must indicate which subcontractor will be used for which alternate. Failure of the Bidder to list on the Proposal Form the names of such subcontractors or to name itself to perform such work, or the names of two or more subcontractors to perform the same work shall render the Bidder's Proposal nonresponsive and void. For purposes of this paragraph, a subcontractor is defined as one who contracts directly with the Contractor to furnish materials and labor, or labor only for the performance of the Work.
- C. After Proposal opening, the Owner may require the apparent low Bidder to identify any proposed subcontractors and major suppliers together with a statement of experience with references for each. Such information shall be submitted within 24 hours of request.

2.06 BID SECURITY

- A. The Proposal shall be accompanied by a Proposal Security in an amount at least 5 percent of the total Contract Sum.
- B. The Proposal Security shall be in one of the following forms and made payable to the Jorgensen Forge Corporation: a Proposal Security bond, either the form

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provided in Section 004313 or a form acceptable to the Owner which contains provisions substantially similar to those in Section 004313 – Proposal Security Form, duly completed by a guaranty company authorized to do business in the state of Washington; a U.S. postal money order; or a certified check or cashier's check drawn upon a banking institution. The surety signing the Proposal Security bond must appear on the U.S. Treasury Department's most current list (Circular 570 as amended), and the surety's name must appear in the current Authorized Insurance Company List in the State of Washington published by the Office of the Insurance Commissioner. Attorneys-in-fact who sign Proposal Security bonds must file with each bond a certified and effectively dated copy of their Power of Attorney.

2.07 PROPOSAL SUBMITTAL

- A. The Proposal, the Proposal Security, and all other documents required to be submitted with the Proposal shall be enclosed in a sealed envelope marked "Proposal submittal by" followed by the name and address of the Bidder, the Owner-designated project name, and the date and time for the opening of Proposals. The envelope containing the Bidder's Proposal must be sealed and designated as:

BID PROPOSAL FOR JORGENSEN FORGE OUTFALL SITE - SSP INSTALLATION

- B. If the Proposal is mailed, it shall be addressed to:

The Intelligence Group, Attn: Bob Romagnoli
443 North Franklin St.
Suite 220
Syracuse NY 13204

The Proposal shall be enclosed within another envelope with the notation "**BID PROPOSAL ENCLOSED**" on the face.

- C. Alternatively, Bidders may email their proposal to **bromagnoli@intell-group.com**. The file must be in pdf format, otherwise it will not receive consideration.
- D. No Proposal shall be considered which has not been received before the Proposal submittal deadline specified in the Request for Proposals. The clock at the Proposal submittal office location is the Owner's official clock. Timeliness of Proposal submittals will be determined using only this clock. Bidder shall assume full responsibility for timely delivery of its Proposal at the specified location.
- E. Oral, telephonic, or faxed Proposals are invalid and will not receive consideration.

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2.08 PROPOSAL PLACE, PROPOSAL DATE, AND PROPOSAL TIME

- A. **Proposal Place:** Proposals will be opened at the offices of The Intelligence Group, 443 North Franklin St, Suite 220, Syracuse NY 13204
- B. **Proposal Date:** Wednesday, January 29, 2014
- C. **Proposal Time:** 5:00 PM PST

2.09 WITHDRAWAL OR MODIFICATION OF PROPOSAL

- A. A Bidder may withdraw or modify its Proposal before the Proposal submittal deadline by submitting written notice to the Owner signed by the Bidder. After Proposal opening, no Bidder may withdraw its Proposal unless Contract award is delayed beyond the time specified.

2.10 PROPOSAL VALIDITY

- A. All Proposals submitted shall be valid and binding on the Bidder for a period of 60 calendar days following the Proposal submittal deadline and for any extension of time granted by the Bidder.

PART 3 – PROPOSAL EVALUATION

3.01 EVALUATION STANDARD

- A. The Owner will evaluate all proposals to determine the best Bidder. In addition to price, the Bidder will be evaluated on technical qualifications, construction approach and methodology. Bidder is encouraged to provide best proposal prices on the Proposal Form.

3.02 VERIFICATION OF PROPOSAL PRICES

- A. Prices set forth in the Proposal will be reviewed by the Owner for mathematical accuracy. The Owner reserves the right to correct mathematical errors or complete mathematical calculations that are obvious on the face of the Proposal. In the event of a discrepancy between a unit price and the extended amount for a Bid Item, the unit price will control. The prices, corrected for mathematical errors, shall be used as the amount of the Proposal Items for evaluation and award purposes.

3.03 CLAIM OF ERROR

- A. A Bidder claiming error in its Proposal must submit supporting evidence including cost breakdown sheets within 24 hours of Proposal opening and provide

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any other supporting documentation requested by the Owner. In the event the Bidder demonstrates an error in the Proposal to the Owner's satisfaction, the Owner may allow the Bidder to withdraw its Proposal.

3.04 RESPONSIVE PROPOSALS

- A. The Owner, in its sole discretion, reserves the right to determine Proposal irregularities that render a Proposal non-responsive, and to waive informalities and immaterial irregularities in the Proposal. A Proposal shall be considered irregular and may be rejected by the Owner as non-responsive for reasons including but not limited to:
1. If the Proposal Form furnished or authorized is not used or is altered
 2. If the Proposal Form or any required supplemental documents are incomplete, contain any additions, deletions, conditions, or otherwise fail to conform to the Owner's requirements
 3. If the Bidder adds any provisions reserving the right to reject or accept the award, or enter into the contract
 4. If the Proposal or Bid Guaranty is not properly executed, or shows an incorrect amount
 5. If the Proposal fails to include a price for every Proposal Item
 6. If the Owner reasonably deems the Bid Guaranty inadequate
 7. If the Owner deems any of the Bid prices to be excessively unbalanced either above or below the amount of a reasonable Bid price for the item of work to be performed, to the potential detriment of the Owner

3.05 BIDDER RESPONSIBILITY CRITERIA

- A. A Bidder must meet the following responsibility criteria and shall verify that its subcontractors at each tier meet the responsibility criteria as required by RCW 39.04.350, submitting proof of subcontractor verification if requested by the Owner. At the time of Proposal opening, the Bidder must:
1. Have a certificate of contractor registration in compliance with Chapter 18.28 RCW
 2. Have a current Washington State Unified Business Identifier number
 3. If applicable, have industrial insurance coverage for the Bidder's employees working in Washington as required in Title 51 RCW, an

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employment security department number as required in Title 50 RCW,
and a state excise tax registration number as required in Title 82 RCW

- B. In addition, the Owner, in its sole discretion, will determine whether the Bidder is a responsible Bidder based on the following responsibility criteria:
1. The ability, capacity and skill of the Bidder to perform the contract or provide the service or work within the time required
 2. The character, integrity, reputation, and efficiency of the Bidder
 3. The quality and timeliness of performance by the Bidder of previous contracts with the Owner or other entities
 4. The previous and existing compliance by the Bidder with laws relating to public contracts
 5. Such other information having a bearing on whether the Bidder is responsible
- C. At the Owner's request, the Bidder shall submit qualifications information regarding the Bidder, its key personnel, and subcontractors and suppliers. In the event a Bidder refuses to provide requested additional qualifications information, the Bidder's Bid Security may be subject to forfeiture and the Proposal may be determined to be not responsible.
- D. The Bidder shall submit the following information within 24 hours of the Owner's request, or may also be provided as part of the Proposal:
1. Bidder's recent job resume
 2. List of any contracts terminated prematurely within the past two year.
 3. List of any Labor and Industry (L&I), environmental, or building citations or notices of violation issued to Bidder within the past two years
 4. If applicable, Washington State Employment Security Department (ESD) Certificate of Coverage letter issued to the Bidder within the last six months, which the Bidder may initiate by emailing bvogel@esd.wa.gov or by faxing (360) 902.9287, that includes the Bidder's name, UBI number, and fax number
 5. Resumes of the Bidder's proposed project manager and job superintendent
 6. In order to verify that the Bidder has adequately incorporated all elements of the Work and the requirements of the Contract Documents in its Bid prices, the Bidder will make available for the Owner's review a complete

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 002100—Instructions To Bidders

itemization of its Bid defining all phases of its work; the Bidder may fax its Bid worksheets to the Owner or bring them to a meeting with the Owner's representatives

- E. The Owner reserves the right to investigate the qualifications of any Bidder, including but not limited to, contacting any reference or any financial institution to verify that the Bidder is qualified to successfully complete the Work.
- F. Prior to award, if requested by the Owner, the Bidder and selected proposed subcontractors or suppliers shall attend a Proposal evaluation conference and shall bring to the conference any documents requested by the Owner to evaluate the Proposal and the Bidder's qualifications.
- G. If the Owner finds that the Bidder is not responsible, the Owner will provide the Bidder written reasons for the determination.

3.06 COLLUSION

- A. If the Owner determines that collusion has occurred among the Bidders, none of the Proposals of the participants in such collusion will be considered. The Owner's determination of collusion shall be conclusive.

3.07 RETURN OF BID SECURITY

- A. As soon as the Proposals have been compared, the Owner will return the Bid Security accompanying any Proposals which, in the Owner's judgment, would not be considered for award. All other Bid Securities will be held until the Contract has been executed, after which all remaining Bid Securities, except which as have been forfeited, will be returned.

3.08 SINGLE PROPOSAL RECEIVED

- A. If the Owner receives a single responsive, responsible Proposal, the Owner shall have the right, in its sole discretion, to conduct a price or cost analysis on such Proposal. The Bidder shall promptly provide all cost or pricing data, documentation and explanation requested by the Owner to assist in such analysis. By conducting such analysis, the Owner shall not be obligated to accept the single Bid; the Owner reserves the right to reject such Proposal or any portion thereof.

3.09 RIGHTS OF THE OWNER

- A. The Owner reserves the right to evaluate all proposals both as to price and technical qualifications and to select a contractor based on that evaluation, or to reject all proposals, as may be in the best interests of the Owner, and in any case, the owner will not be responsible for Bidder's costs to prepare the Proposal.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 002100—Instructions To Bidders

PART 4 – AWARD OF CONTRACT

4.01 NOTICE OF AWARD

- A. The acceptance of a Proposal will be evidenced by a written notice of award delivered to the Bidder whose Proposal is accepted. The Owner reserves the right to request extensions of the Proposal acceptance period.
- B. Within 5 days after issuance of the notice of award the Agreement Form set forth in Section 005200 – Agreement Form shall be executed in duplicate and returned together with certificates of insurance with endorsements as required by the Contract Documents.
- C. The Bidder shall not commence physical modification of the Work Site until the Owner has issued its notice of award, notice to proceed, and the Owner has received the executed Agreement form and certificates of insurance meeting the requirements of the Contract Documents.

4.02 EXTENSION OF TIME

- A. If the Agreement form is not executed or not submitted to the Owner within the time required and, in the Owner's discretion, circumstances warrant an extension of time, it may extend the time for execution of the Agreement form or for furnishing insurance certificates for a period not to exceed 3 additional days.

4.03 FAILURE TO EXECUTE CONTRACT

- A. If the Bidder awarded the Contract fails to execute the Agreement form and furnish the required insurance certificates within 5 days from delivery of the notice to award, or declares in writing its intent not to execute the Contract, its Bid Guaranty shall be forfeited to the Owner and the Owner may issue notice of award to the second lowest responsible Bidder, and in like manner until the Agreement form is executed by a responsible Bidder to whom award is made, or further Bids are rejected. Forfeiture of the Bid Guaranty shall not limit the Owner's right to recover damages from the Bidder caused by the Bidder's failure to execute the Contract.

4.04 CANCELLATION OF AWARD

- A. The Owner reserves the right to cancel the award of any Contract at any time before the execution of said Contract by all parties without liability to the Owner.

END OF SECTION

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS**Section 004143—Proposal Bid Form****BIDDER'S NAME:** _____**PROJECT TITLE:** JORGENSEN FORGE OUTFALL SITE PROJECT - SSP
INSTALLATION

The undersigned Bidder declares that it has read the Plans and Specifications, understands the conditions, has examined the work site, and has determined for itself all situations affecting the work to be bid upon. Bidder proposes and agrees, if this proposal is accepted, to provide at Bidder's own expense all labor, machinery, tools, materials, and other items, including all work incidental to or described or implied as incidental to such items according to the Contract Documents, and that the Bidder will complete the Work within the time stated, and that Bidder will accept in full payment therefore the unit price(s) set forth as follows:

(Note: Show prices in figures only)

DESIGN OPTION 1: COFFERDAM DESIGN

Item No.	Qty	Description of Item	UOM	Unit Price	Amount
1.	1	Mobilization and Demobilization (Maximum of 10% of subtotal Base Bid)	LS		
2.	1	Site Preparation	LS		
3.	1	Removal/Stockpile of Existing Rip Rap	LS		
4.	106	Installation of In-River SSP (23 sheet pile pairs and ancillary features)	LF		
5.	32	Installation of Upland SSP (7 sheet pile pairs and ancillary features)	LF		
6.	1	Installation of Scour Protection	LS		
7.	1	Surveying	LS		
8.	1	Removal of In-River SSP	LS		
9.	1	Allowance for Unanticipated Conditions	EST	50,000	50,000
Subtotal Bid					
Washington State Sales Tax 9.5%					
Total Bid					

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS**Section 004143—Proposal Bid Form****DESIGN OPTION 2: SHORELINE WALL DESIGN**

Item No.	Qty	Description of Item	UOM	Unit Price	Amount
1.	1	Mobilization and Demobilization (Maximum of 10% of subtotal Base Bid)	LS		
2.	1	Site Preparation	LS		
3.	1	Removal/Stockpile of Existing Rip Rap	LS		
4.	115	Installation of Upland SSP (25 sheet pile pairs and ancillary features)	LF		
5.	1	Surveying	LS		
6.	83	Removal of Upland SSP (18 sheet pile pairs)	LF		
7.	1	Allowance for Unanticipated Conditions	EST	50,000	50,000
Subtotal Bid					
Washington State Sales Tax 9.5%					
Total Bid					

Addenda. Bidder acknowledges review of all Addenda through No. _____.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 004143—Proposal Bid Form

Technical Qualifications, Construction Approach, and Methodology. The Bidder shall submit the following information as part of their Proposal. Failure to submit any of the following items will result in rejection of the Bidder's Proposal. The Bidder's information shall be attached to the end of this Proposal Form and submitted with the Bidder's Proposal.

1. Provide a critical path method (CPM) project schedule for each Design Option showing all major project elements from mobilization through final completion. The following milestones/deadlines shall be incorporated into the schedule:
 - a. **Finish Construction of ALL In-River Components (3 walls)** – Deadline, March 3, 2014 [Design Option 1]
 - b. **Start Construction of Shoreline (or Upland) Wall** – Deadline, April 1, 2014 [Design Options 1 and 2]
2. Describe proposed means and methods for implementation of Design Option 1 and Design Option 2.
3. Completed JFC HASP Appendix A. (see JFC HASP Attachment)

Evaluation of Bids. The Owner will evaluate all proposals to determine the best Bidder. In addition to price, the Bidder will be evaluated on technical qualifications, construction approach and methodology. Bidder is encouraged to provide best bid prices in the above table.

Bid Security. A certified check, cashier's check, or other obligation of a bank, or a bid security bond in substantially the form set forth in Section 004313 – Bid Security Form, for at least 5% of the total Bid without sales tax, accompanies this Bid.

Contract Time. The Contract, in its entirety, shall be Substantially Complete within 60 calendar days, dating from date of Notice to Proceed, and shall be Finally Complete within 30 calendars days of Substantial Completion.

Noncollusion. The undersigned declares under penalty of perjury that the bid submitted is a genuine and not a sham or collusive bid, or made in the interest or on behalf of any person or firm not therein named; and further says that the said bidder has not directly or indirectly induced or solicited any bidder on the above work or supplies to put in a sham bid, or any other person or corporation to refrain from bidding; and that said bidder has not in any manner sought by collusion to secure to the bidder an advantage over any other bidder or bidders.

Name of Firm

Date

Signature

By (Type or Print)

Title

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 004143—Proposal Bid Form

Mailing Address

City

State

Zip Code

Telephone No.

Email Address

Washington State Contractor's License No.

Date of Issue

Expiration Date

Unified Business Identifier No.

Federal Tax ID No.

END OF SECTION

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 004313—Proposal Security Form

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, and
_____, as Surety, are held and firmly bound unto the
Jorgensen Forge Corporation (Jorgensen Forge) as Obligee, in the penal sum of
_____ Dollars, for the payment of which the Principal and Surety
bind themselves, their heirs, executors, administrators, successors and assigned, jointly and severally, by
these present.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for the
Jorgensen Forge Outfall Site Project – SSP Installation, according to the terms of the proposal made by
the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee, in
accordance with the terms of said proposal and award, and shall give bond for the faithful performance
thereof, with Surety or Sureties approved by the Obligee; or, if the Principal shall, in case of failure to do
so, pay and forfeit to the Obligee the penal amount of the deposit specified in the Call for Proposals, then
this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the
Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this
bond.

SIGNED, SEALED AND DATED THIS _____ day of _____, 2014

BY _____
Principal

BY _____
Surety

Address

Note: Bidder may submit Surety's proposal bond form, provided it is similar in substance, made out in the
name of Jorgensen Forge Corporation, and that the agent's name and address appear as specified. Bonds
containing riders limiting responsibility for toxic waste or limiting the term of responsibility will be
rejected.

END OF SECTION

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 005200—Agreement Form

JORGENSEN FORGE OUTFALL SITE PROJECT

The Jorgensen Forge Corporation (Jorgensen Forge; the Owner) and the undersigned Contractor (the Contractor) agree as follows:

The Contractor shall perform all of the work required by the Contract Documents for the Jorgensen Forge Outfall Site Project – SSP Installation, and, in consideration, Jorgensen Forge agrees to pay the Contractor for the project as provided in the Contract Documents, subject to Change Order, for the total Contract Sum not to exceed _____ Dollars plus Washington State Sales Tax, in accordance with the Contractor's Bid, incorporated herein.

The Contract Documents consist of the Advertisement for Bids, Instructions to Bidders, Agreement, Procurement and Contracting Requirements, General Requirements, Specifications, Drawings, Addenda, Change Orders and insurance certificates, and are all fully part of the Contract and incorporated by this reference.

CONTRACTOR

Contractor:

By:

Title:

JORGENSEN FORGE CORPORATION

Executed this _____ day of _____, 2014

By:

Title:

END OF SECTION

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007100—Contracting Definitions

PART 1 – GENERAL

1.01 DEFINITIONS

- A. **Addendum:** An Addendum is a written or graphic document issued by Jorgensen Forge prior to the opening of Bids that clarifies, corrects, or changes a document contained or referenced within the Contract Documents.
- B. **Agreement:** An Agreement is a written form executed by Jorgensen Forge and the Contractor that binds the Contractor to perform the Work in accordance with the Contract.
- C. **Bid:** A Bid is the offer of a Bidder, on the prescribed Bid Form, properly executed, and setting forth the price or prices for the Work to be performed.
- D. **Change Order:** A Change Order is a written document issued by Jorgensen Forge on or after the date of the execution of the Agreement that authorizes and directs an addition, deletion, or other revision in the Work, or an adjustment in the Contract Time or Contract Sum.
- E. **Contract:** The Contract is the legal relationship between Jorgensen Forge and the Contractor, and describes the rights, duties, and obligations of each as set forth in the Contract Documents.
- F. **Contract Documents:** The Contract Documents consist of the Advertisement for Bids, Instructions to Bidders, Agreement, Drawings, Specifications, General Conditions, Supplementary Conditions, Addenda, Change Orders, insurance certificates, the Bid Form, and any other form indicated by Jorgensen Forge as being part of the Contract Documents. Words and abbreviations that have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- G. **Contract Sum:** The Contract Sum stated in the Agreement Form as amended by Change Order is the total amount payable by Jorgensen Forge to the Contractor for performance of the Work in accordance with the Contract Documents. The Contract Sum does not include state or local sales tax on the transaction between Jorgensen Forge and the Contractor.
- H. **Contract Time:** Contract Time is the period of time provided in the Contract Documents for the performance of the Work by the Contractor. Contract Time may be changed only by Change Order.
- I. **Contractor:** The Contractor is the individual, partnership, firm, corporation, joint venture, or other business entity identified as such in the Agreement that has agreed to perform the Work in accordance with the Contract Documents.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007100—Contracting Definitions

- J. **Day:** The term day shall mean a calendar day unless otherwise specifically designated.
- K. **Designated Representative:** A person identified in writing as Contractor's or Owner's designated representative with full authority to act on behalf of such party in connection with the Contract Documents.
- L. **Drawings:** Drawings are the graphic presentation of the Work or parts thereof that indicates the size, form, location, and arrangement of the various elements of the Work.
- M. **Final Completion:** Final Completion occurs when the Designated Representative determines that all items on the approved Punch List or otherwise considers all physical work to be fully completed in accordance with the Contract Documents and the Contractor has submitted all documentation required by the Contract and required by law, to allow Jorgensen Forge to process final acceptance of the Contract.
- N. **Force Account Work:** Force Account Work is work that is directed by Jorgensen Forge to be performed on a time and expense basis with concurrent documentation as set forth in paragraph 1-09.6 of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, 2010 edition.
- O. **Hazardous Materials:** Hazardous Materials are any hazardous or toxic substances, materials, and wastes listed in the United States Department of Transportation Hazardous Materials Table (49 CFR 172.101) or listed by the Environmental Protection Agency as hazardous substances (40 CFR Part 302) and any amendments thereto, and any substances, materials or wastes that are or become regulated under federal, state, or local law. Hazardous Materials (or substances) shall also include, but not be limited to: regulated substances, petroleum products, pollutants, and any and all other environmental contamination as defined by, and in any and all federal, state and/or local laws, rules, regulations, ordinances or statutes now existing or hereinafter enacted relating to air, soil, water, environmental or health and safety conditions.
- P. **Inspector:** The Inspector is the Designated Representative's authorized representative assigned to make inspections of the Contractor's performance of the Work.
- Q. **Jorgensen Forge:** Jorgensen Forge is the preferred abbreviation of The Jorgensen Forge Corporation. The term Jorgensen Forge also includes all of Jorgensen Forge's directors, officers, employees, consultants, and other authorized representatives.
- R. **Owner:** Jorgensen Forge.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007100—Contracting Definitions

- S. **Product Data:** Product Data are the illustrations, standard schedules, performance charts, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.
- T. **Project:** The Project is the particular work described in the Contract Documents.
- U. **Project Manager:** The Project Manager is the Designated Representative, who is located on or near the Work Site and assigned immediate charge of the on-site engineering and administration of the construction project.
- V. **Provide:** The term provide shall refer to the all-inclusive actions required to furnish, install, connect, adjust, test, and make ready for use or occupancy.
- W. **Punch List:** A Punch list is the preliminary list, as revised during the inspection (see Paragraph DD below).
- X. **Samples:** Samples are physical examples that illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.
- Y. **Schedule of Prices:** Schedule of Prices means the unit prices set forth in the Contract Documents.
- Z. **Specifications:** Specifications are those portions of the Contract Documents consisting of the written technical descriptions of materials, equipment, construction systems, standards, workmanship, and other requirements which govern the quality and performance of the Work.
- AA. **Subcontractor:** A Subcontractor is a business entity that has an agreement with the Contractor to perform a portion of the Work. The term “subcontractor” means and includes the subcontractor and its authorized representatives.
- BB. **Submittals:** Submittals consist of those items required by specification to be presented to the Owner in advance of beginning Work that is contractually dependent on Owner review and approval of the defined submittal content. Submittals may consist of working Drawings, Shop Drawings, erection plans, falsework plans, framework plans, cofferdam plans, stress diagrams, or other diagrams, plans, or data used to illustrate some portion of the Work that the Contractor is required to submit to the Owner for approval. Submittals may also consist of documentation that Work is completed in accordance with the Contract Documents.
- CC. **Sub-subcontractor:** A Sub-subcontractor is a business entity that has an agreement with a subcontractor to perform a portion of the Work. The term “sub-subcontractor” means and includes the sub-subcontractors at all tiers.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007100—Contracting Definitions

DD. **Substantial Completion:** Substantial Completion occurs when the Work as a whole or a designated portion thereof is sufficiently complete, in accordance with the Contract Documents, so that Jorgensen Forge can use or occupy the Work or a designated portion thereof for the use for which Jorgensen Forge intended and the required Operations and Maintenance manuals, Warranties, and all Submittals as required by the Specifications have been provided.

When the Work, or a designated portion thereof, is considered by the Contractor to be substantially complete and the Contractor has submitted the documents described above, the Contractor may request that Jorgensen Forge schedule an inspection. With the request the Contractor shall provide a preliminary list of items to be completed or corrected in order to make the Work comply with the Contract Documents. Jorgensen Forge will review the list and determine whether the Work is ready for inspection. Jorgensen Forge will perform the inspection together with the Contractor. The preliminary list, as revised during the inspection, is referred to as the Punch List. The Owner may revise the Punch List at any time prior to Final Completion when items needing completion or correction are discovered.

EE. **Supplementary Conditions:** Supplementary Conditions are that portion of the Contract Documents that amends or supplements the General Conditions.

FF. **Supplier:** A Supplier is a vendor, supplier, distributor, or material supplier which supplies material or equipment used in the performance of the Work.

GG. **TSCA:** The Toxic Substances Control Act (TSCA) (15 U.S.C. 2601–2692) consists of Public Law 94–469 (Oct. 11, 1976; 90 Stat. 2003) and the amendments made by subsequent enactments.

HH. **Unit-price Work:** Unit-price Work is work to be paid for on the basis of unit prices stated in the Schedule of Prices or a Change Order. Such Work to be measured for payment as described within the Contract Documents.

II. **Work:** Work is all services, labor, materials, equipment, and incidentals necessary to successfully complete the work and service required by or reasonably inferable from the Contract Documents, including all materials and equipment to be incorporated in the construction.

JJ. **Working Drawings:** Shop drawings, erection plans, false work plans, framework plans, cofferdam plans, stress diagrams, or other diagrams, plans, or data used to illustrate some portion of the Work that the Contractor is required to submit to the Engineer.

KK. **Work Site:** The Work Site is the location where the Work will be performed.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007100—Contracting Definitions

PART 2 – PRODUCTS - NOT USED

PART 3 – EXECUTION - NOT USED

END OF SECTION

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007200—General Conditions

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Section 007200—General Conditions

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DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007200—General Conditions

CONSTRUCTION/MAINTENANCE/ENGINEERING GENERAL TERMS AND CONDITIONS

1 – ACCEPTANCE

The Contractor's acceptance of this Contract is expressly limited to the terms and conditions contained herein. If prior to signing this Contract, the Contractor ships any material, commences any work, or performs any service covered by this Contract, that shipment, work or material shall be governed by this Contract.

2 – AGREEMENT

The Contract, together with any documents attached hereto or incorporated herein by reference, constitutes the entire agreement between the Contractor and the Owner (Jorgensen Forge Corporation) and supersedes all prior agreements, representations and understandings, with respect to all services, labor, materials, equipment, and incidentals necessary for the complete and successful completion of the work and service required by or reasonably inferable from the tasks described herein, including all materials and equipment to be incorporated in the construction (the Work). None of the Contractor's inconsistent and/or additional terms and conditions submitted in acknowledging this Contract or in releases, invoices or other documents shall apply to this Contract.

3 – PAYMENT

Payment terms are Net 60 Days calculated from the Owner's receipt of an acceptable invoice and confirmation of completed acceptable work. Unless otherwise prohibited by applicable law or regulation, the Owner's payment method shall be via wire transfer or check to Contractor. The Contractor shall provide to the Owner all information necessary to make such wire transfer payment, including the name and location of the financial institution and the name and number of the bank account. Payment shall be conditioned on the Owner receiving, prior to such payment, such evidence as the Owner may reasonably request, to show that the Contractor's subcontractors have released all liens and claims against the Work and where the work will be performed (Work Site). (In this Contract, "subcontractor" means a supplier of goods and/or services to the Contractor unless otherwise required by the context.)

The Owner's payment to the Contractor is for satisfactory completion of the Work and covers the Contractor's costs for materials, supplies, equipment, tools, labor, services, and overhead, and is for the Contractor's profits. The Owner may withhold any payment or part thereof that the Owner reasonably deems necessary to indemnify it from actual or potential losses—such as losses due but not limited to defective work, third party claims, failure to make payments reasonably due third parties, damage to the Owner or another contractor—or failure to perform the Work in accordance with this Contract. Any payments so withheld shall be paid to the Contractor upon the Owner's receipt of satisfactory evidence of completed corrective action.

The Contractor's acceptance of the final payment shall constitute the Contractor's waiver and release of all of the Contractor's claims against the Owner.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007200—General Conditions

4 – TAXES

Unless otherwise noted herein, all prices or rates include all applicable taxes except Washington State sales tax. The Contractor shall pay when due all local, state, and federal taxes applicable to the performance of the Work, and shall indemnify and hold the Owner harmless from all claims arising from it.

5 – CONTRACTOR'S EXAMINATION

The Contractor has examined the Work Site before signing this Contract and is satisfied as to the conditions under which the Work will be performed. No additional compensation shall be paid to the Contractor, nor will any extension of time be granted, with respect to any of these conditions.

6 – WARRANTY

The Contractor warrants that performance or furnishing of the Work shall be promptly done in accordance with this Contract and highest industry standards, in conformity with all applicable codes and regulations, free from defects in design, materials, or workmanship, fit for their intended purpose, and give efficient and satisfactory performance. The Contractor shall at its expense correct any of the Work promptly after written notice by the Owner. The Owner may make any corrections that the Contractor fails to make promptly and the Contractor shall promptly pay to the Owner the cost thereof with the Owner having the right to deduct that cost from any amounts owed the Contractor until such payment is made to the Owner.

7 – TIMELINESS AND SCHEDULE

Time is of the essence to the Owner. The Contractor shall schedule its activities to complete the Work within the agreed time. Failure to complete the work in the agreed amount of time may result in notice of violation/fines from USEPA. The Contractor will be responsible for all fines levied from USEPA, if deadlines are not met due to Contractor or sub-Contractor performance actions. Communication to the Contractor directing or requesting that the Work be performed more expeditiously by the Contractor, or otherwise addressing the subject of the progress or rate of progress of the Work, shall not obligate the Owner to pay any amount in addition to the price stipulated in the price section herein without the Owner's prior written consent.

If not already provided, the Contractor shall give the Owner a detailed Contract Schedule within 1 day from the date of this Contract. That Schedule shall show all construction activities and sequence of operations needed to meet the project deadlines. That Schedule shall be reviewed and modified each week, as necessary, taking into account the actual work progress, and shall be submitted to the Owner by the close of business each Thursday.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007200—General Conditions

8 – REPRESENTATIVES

The Owner shall approve all changes in writing. The Contractor shall designate a qualified representative in writing to act for the Contractor under this Contract and be present at the Work Site whenever the Work is in progress. The Owner may require the Contractor, at its own expense, to promptly replace the Contractor's representative at any time for reasonable cause.

9 – ACCESS

The Contractor shall have controlled access to the Work Site in accordance with Owners signed Premises Entry agreement. Only construction vehicles and equipment will be issued permits into the Work Site; and all other vehicles shall be limited to designated parking areas. The Owner shall designate the entrance and roadways to be used by the Contractor, its subcontractors and their respective employees. The Contractor shall insure that its employees, subcontractor's employees and delivery and other vehicles in support of the Work use only those entrances and roadways so designated. The Contractor's employees will be permitted only in his or her own work areas at the Work Site.

10 – COORDINATION

The Owner reserves the right to let other contracts for work at the Work Site. The Contractor shall not interfere with and shall cooperate in all material respects with other contractors, and shall provide access opportunities for all other contractors to the Work Site, and for the storage of their materials and equipment at the Work Site.

All labor employed to perform the Work shall be used in such a manner as to avoid disharmony with other trades on premises owned, leased or controlled by the Owner.

The Contractor shall coordinate its work with the work of all other contractors.

The Contractor shall not impede the Owner's operations conducted in areas adjacent to the Work Site.

11 – CONTRACTOR SUPPLIED MATERIAL/EQUIPMENT

The Contractor shall be responsible for the purchasing, expediting, receiving, storage, installation, erection, theft of, or damage to all material included in this Contract until completion of all Work and acceptance by the Owner.

All materials, supplies, and equipment purchased for the Work shall be new unless otherwise approved in writing by the Owner, and shall be furnished in such quantities and be of such quality to ensure the expeditious and proper execution of the Work within the schedule specified in this Contract.

The Owner is not responsible for damage to or theft of construction equipment and tools owned, rented, or controlled by the Contractor, its subcontractors, or their respective employees unless caused by the sole negligence of the Owner.

DIVISION 00—PROCUREMENT AND CONTRACTING REQUIREMENTS

Section 007200—General Conditions

The Contractor and its subcontractors will require that their respective employees use OSHA-specified hard hats and safety glasses with side shields, steel toe boots, respirators and all other standard or specific safety equipment required in addition to following all of Owner's safety requirements when working within Owner's facility. The Contractors and their subcontractors shall hold a daily safety briefing with sign in sheets of which copies will be provided to the Owner no later than one (1) business day of briefing.

The Contractor's material safety data sheets (MSDS) shall be provided to the Owner and copies maintained by the Contractor at the Work Site, available to a party upon its request.

12 – OWNER SUPPLIED EQUIPMENT/MATERIAL

If required by this Contract, the Owner-supplied material will be received by the Contractor's construction stores facility.

The Owner's MSDS shall be available to the Contractor upon its request.

13 – LAWS AND REGULATIONS

All Work shall be in strict compliance with all applicable laws, rules, regulations, executive orders, requirements, and ordinances of any governmental authority whether federal, state or local, and with the Responsible Care® initiative of the American Chemistry Council and, at all times while the Contractor's employees or other representatives are on the Owner's premises, in strict compliance with the Owner's policies on safety, security and substance abuse. If the Owner notifies the Contractor of any non-compliance with the provisions of this Section and the action to be taken, the Contractor shall promptly make all reasonable efforts to correct the existing failure. If the Contractor fails to do so, the Owner may stop all or any part of the Work hereunder until satisfactory corrective action is taken by the Contractor. No part of the time lost due to any such Work stoppage shall be made the subject of a claim for extension of time or for additional costs or damages by the Contractor. Failure to complete the work in the agreed amount of time may result in notice of violation/fines from USEPA. The Contractor will be responsible for all fines levied from USEPA, if deadlines are not met due to Contractor or sub-Contractor performance actions.

14 – PERMITS

This project is being conducted pursuant to the Second Modification to the 2011 EPA Administrative Order on Consent for Removal Action (AOC; Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] Docket No. 10-2011-0017). As such, this project is exempt from permitting through the local permitting agency (City of Tukwila). However, all work must still be completed in accordance substantive requirements of any permits which would be needed if this project were not exempt. The Contractor shall comply with all applicable local, state, and federal laws and regulations.

The permit exemption under the AOC does not apply to electrical, mechanical, or utility permits. The Contractor is responsible for obtaining any of these permits which may be required as part of the Contractor's work.

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15 – HAZARDOUS SUBSTANCES

If required as part of the Work, the Contractor shall ensure that all hazardous substances (including without limitation contaminated soil, sediment, water and/or demolition debris) with which it deals receive safe and proper handling. Any and all materials having suspected contamination will be segregated and contained in appropriate designated areas awaiting decontamination or disposal as hazardous waste. The Contractor is responsible for maintaining these areas with appropriate safeguards, points of entry and containment barriers, including caution tape defining the actual holding areas. The Contractor will be responsible for maintaining these contaminated hot areas, requiring appropriate personnel protective equipment (PPE) when entering into these designated hot zones and appropriate decontamination of personnel and equipment before exiting these hot zones and transferring contamination into or onto clean areas. Any cross contamination will be cleaned up by the Contractor. Materials and equipment will be decontaminated at the end of each work day. Containers holding contaminated water, soils or equipment will be appropriately labeled in accordance with State of Washington, Department of Ecology, DOT CFR Title 49 and OSHA CFR Title 29. Any fines levied by any agency for failure to adhere to the agency's legal requirements are the responsibility of the Contractor. Any contamination transferred onto the Owner's facility will be decontaminated by the Contractor and appropriate testing will be submitted to a 3rd party laboratory for verification that there is no contamination remaining after completion of the decontamination.

16 – INSPECTION

The Owner shall at all times have access to the Work at the Work Site and at the sources, shops, or fabrication centers of vendors and suppliers for purposes of inspection thereof and to expedite any materials and equipment, and the Contractor shall provide sufficient, safe, and proper facilities for such access, inspection and expedition thereof. Additionally, The Boeing Company (Boeing) shall have similar rights. All Contractor communications with Boeing shall be coordinated through Owner.

When the Contractor considers the Work completed, the Contractor shall notify the Owner in writing. The Owner, with the Contractor's cooperation, will conduct such reviews, inspections, and tests as may be reasonably required to satisfy the Owner that the Work conforms to all requirements of this Contract. If any part of the Work covered by that notice does not conform to this Contract's requirements, the Owner shall notify the Contractor of such non-conformance and the Contractor shall take prompt corrective action and have the non-conforming work re-inspected until accepted.

Neither the Owner's inspection or expedition nor failure to inspect or expedite shall relieve the Contractor of any obligation hereunder.

17 – AUDIT RIGHTS

The Owner shall have the right to audit (at any time) all records of the Contractor and its subcontractors relating to the Work. The Contractor shall maintain or cause to be maintained all

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such records for 2 years after final payment hereunder and shall make them promptly available to the Owner upon its request.

18 – OTHER SERVICES

If any of the Work requires, in connection with the installation or start-up thereof, the services of a supervisor, expert, or other person employed by or connected with the Contractor, the Contractor shall furnish, subject to Section 24, the same without charge unless explicitly provided for herein. Such person shall not be deemed the agent or employee of the Owner, and the Contractor shall be exclusively responsible for that person's acts or omissions.

19 – CONDEMNED WORK

Within 24 hours of receiving notice from the Owner, the Contractor shall remove all materials condemned by the Owner from the Work Site, whether worked or unworked, and take down all portions of the Work which shall by like notice be condemned as unsound or improper or in any manner failing to conform to this Contract and shall restore all Work condemned at the Contractor's sole expense to conform with this Contract.

20 – PROHIBITED EMPLOYMENT

The Contractor shall not employ any person employed by the Owner. At the Owner's request, the Contractor shall immediately cause any of the Contractor's or its subcontractor's personnel to cease performing services concerning the Work and to be removed from the Work Site.

21 – EQUAL EMPLOYMENT OPPORTUNITY

The Contractor shall not discriminate against any employee or applicant for employment for reasons of race, color, creed, sex, age, national origin, handicap, veteran's status, or any other grounds prohibited by law. The Contractor shall comply with the federal government authorities' laws, rules, regulations, and programs (including, without limitation, Executive Order 11246 and, 503 and 38 U.S.C. 2012 Programs) applicable to persons who directly or indirectly supply goods or services to the federal government.

22 – CLEAN-UP

Throughout the project, the Contractor shall keep the Work Site and the surrounding premises clear of debris, uncontained contaminated water/soil or equipment, and rubbish caused by the Contractor's operations hereunder, and at the completion of the Work shall leave that area a safe and clean environment ready for use.

23 – INDEPENDENT CONTRACTOR

The Contractor shall perform the Work at its sole risk and account and shall assume full responsibility for the Work. Nothing in this Contract shall be deemed to constitute the Contractor, or any of its employees and representatives, as the agent, representative, or employee of the Owner. The Contractor shall have complete and sole control over its employees and

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representatives, the details of the Work, and the methods by which the Work is accomplished. At all times, the Contractor shall be an independent contractor.

24 – CHANGES

The Owner may from time to time by written instruction or Drawings issued to the Contractor make changes, issue additional instructions, require additions to the Work, accelerate the time for completing the Work, or direct the omission of Work previously ordered; and the provisions of this Contract shall apply to all such changes, additions and modifications. Immediately upon receipt of such instruction or Drawings, the Contractor, with all due expediency, shall submit a written proposal to the Owner for accomplishing such changes, additions and modifications, which proposal shall reflect any increase or decrease in cost to the Contractor, state the basis of compensation, and indicate the impact of such Work on the total price and on the time schedule for all the Work. The Owner shall determine whether it wishes to proceed with the change on that basis. The Owner shall immediately notify the Contractor of such determination and that change, if any, shall be performed by the Contractor in accordance therewith.

25 – CANCELLATION FOR CONVENIENCE

The Owner may cancel this Contract at any time by giving the Contractor written notice (Cancellation Notice). Upon receipt of a Cancellation Notice, the Contractor shall protect all property in its possession which the Owner has an interest and shall terminate all work and commitments pursuant to this Contract as quickly and as effectively as possible, and shall promptly provide written proof thereof to the Owner. In the event of cancellation pursuant to this Section, the Owner shall pay to the Contractor that percentage of the price herein which corresponds to the percentage of the Work properly completed prior to the Contractor's receipt of the Cancellation Notice, plus the Contractor's reasonable charges occasioned by the cancellation, less the sums the Contractor has been paid on account of the Work performed and the amount of all claims by the Owner against the Contractor. The Contractor shall assign to the Owner all contracts and purchase orders, and transfer all materials and equipment, as the Owner shall request be so assigned and transferred in connection with the Work. Except as specifically provided in this Section, the Contractor shall not be entitled to any payment for loss of anticipated profits or consequential, indirect, or other damages resulting from or arising out of such cancellation.

26 – TERMINATION FOR DEFAULT

The Contractor shall have materially breached this Contract if:

- Proceedings by or against the Contractor commence under any law relating to bankruptcy or insolvency or the appointment of a representative for the benefit of Contractor's creditors
- The Contractor fails to furnish sufficient labor or materials to complete the Work in accordance with this Contract

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- The Contractor fails to comply with the Owner's reasonable instructions or any of the terms or conditions of this Contract

The Owner shall have the right to terminate this Contract forthwith in the event of any default by the Contractor. In the event of any such termination, the Owner shall take sole possession of the Work Site and may take possession of any materials or equipment incorporated or contemplated to be incorporated into the Work and cause the Work to be completed in whatever manner the Owner deems appropriate. The Contractor shall promptly assign to the Owner, or the Owner's designee, such contracts and purchase orders as the Owner shall request be so assigned in connection with the Work. Upon termination pursuant to this Section, the Contractor shall not be entitled to any further payments for the Work except as provided herein. Upon completion of the Work or at such time as the Owner elects not to complete the Work, the Owner shall pay to the Contractor the amount by which sums properly due the Contractor at the time of termination for Work theretofore performed exceeds the loss and damage to the Owner attributable to the default (including, without limitation, any sums expended by the Owner towards completion of the Work subsequent to termination). If the Owner's loss and damage attributable to the default exceeds the amounts due the Contractor hereunder, the Contractor shall promptly pay the Owner the amount of such excess upon demand.

27 – ASSURANCE OF PERFORMANCE

If a party (the Demanding Party) has reasonable grounds for insecurity about the other party's performance of this Contract, the Demanding Party may make a demand for an adequate assurance of due performance (Assurance) from the other party. This demand must be in writing and must state the grounds for the insecurity as well as the information that causes the Demanding Party to consider itself insecure and the sources of such information. Upon receipt of such a demand, the other party shall promptly give an Assurance that is adequate under the circumstances. The Demanding Party may:

- Suspend its performance under this Contract until the Demanding Party receives that Assurance
- Terminate this Contract (without liability to the other party and without prejudice to any other rights or remedies it may have) if the Demanding Party does not promptly receive such Assurance

28 – INDEMNIFICATION

To the fullest extent permitted under applicable law, the Contractor shall be liable for loss, destruction of, violation of USEPA regulations, or damage to:

- The Work until fully completed and accepted by the Owner
- All temporary construction aids, including, but not limited to, shoring, scaffolding, falsework and sheds
- All property of the Owner

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- All property of others caused by the Contractor, its employees, subcontractors, agents or others acting through or on behalf of the Contractor
- All personal property of the Contractor's employees, unless such loss, destruction or damage is caused by the sole negligence of the Owner

To the fullest extent permitted under applicable law, the Contractor indemnifies, defends and holds harmless the Owner, its affiliates, employees and agents against all claims, liabilities, losses, damages and expenses (of every kind whatsoever) for all bodily injury, sickness and/or disease, including, without limitation, death, economic or environmental injuries or damages to any public or private property or resources, sustained by any person(s) (including, but not limited to, employees of the Owner, the Contractor, or any subcontractor) if such injury, sickness, disease and/or death or economic or environmental injury or damages is in any way connected with the Work or with the performance of or failure to perform the Work, unless it results from the sole negligence of the Owner.

The Contractor acknowledges that, to the fullest extent permitted under applicable law, its liability and indemnity obligations under this section shall be without regard to the negligence of owner, when owner's negligence is a joint, concurrent, or partial (but not sole) cause of the incident, occurrence or resulting loss, damage, destruction, injury, sickness, disease or death, and without monetary limit to the extent permitted by law. It is the parties' intention that, to the fullest extent permitted under applicable law, this section's indemnification is intended to expressly indemnify owner for the consequences of its own strict liability, negligent acts, and omissions to the extent expressly provided herein.

29 – LIENS

The Contractor indemnifies, defends, and holds harmless the Owner (and the owner of the premises where the Work Site is located, if other than the Owner) from and against all liabilities, claims, demands, damages, costs, and expenses, including, without limitation, attorneys' fees, amounts paid in settlement and litigation costs, relating to any claim or lien for labor performed or material furnished or relating to any security interest or other kind of lien, charge or encumbrance arising directly or indirectly out of or in connection with the Work. The Contractor shall promptly discharge its obligations to its laborers, material, men, subcontractors, and creditors and shall ensure that its subcontractors do likewise to theirs. The Owner may pay directly to a third party the amount of any claim against the Contractor in connection with the performance of the Work, or pay to a surety the amount charged by the surety to remove a lien by bonding or other procedures, in which event the amount so paid as well as related costs including, without limitation, attorneys' fees, amounts paid in settlement and litigation costs may be withheld from sums due the Contractor hereunder, or if not so withheld then such amount shall be paid by the Contractor to the Owner upon demand by the Owner. If requested by the Owner, the Contractor shall furnish the Owner with evidence (satisfactory to the Owner) of payment of all amounts that the Contractor owes others concerning the Work. This Section shall survive termination or expiration of this Contract notwithstanding any payment or settlement between the parties unless such settlement is in writing and explicitly refers to this Section.

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30 – INSURANCE

Prior to commencing of the Work, the Contractor shall obtain and maintain at its sole cost and expense, throughout the Work, the following insurance coverage:

- Workers' Compensation in accordance with the statutory requirements of the state in which any Work is to be performed, Alternate Employer Endorsement if applicable, United States Longshore and Harbor Workers Compensation Act endorsement, and Employer's Liability with minimum limits of not less than \$1,000,000 per accident.
- Commercial General Liability with limits of not less than \$6,000,000 per occurrence covering bodily injury and property damage. Such policies shall provide:
 1. Contractual liability
 2. Non-Gradual Pollution
 3. Asbestos Abatement endorsement if applicable to Work
- Commercial Automobile Liability (if any motor vehicle is used in performing the Work) with combined single limits of not less than \$3,000,000 per accident covering bodily injury and property damage. This Commercial Automobile Liability Insurance shall cover all automobiles owned, hired, rented, or used by the Contractor.
- Gradual Pollution Legal Liability (if the work includes the disposal of any hazardous materials from job sites) with limits of not less than \$3,000,000 covering bodily injury and property damage.
- If the Work involves engineering or procurement services for the Owner, Professional Liability Insurance with minimum per claim limit of not less than \$1,000,000. This insurance shall also cover all direct and vicarious contractual liability.

These insurance coverages and limits may be insured through primary or excess layers of insurance or deductibles or self-insured retentions reasonably acceptable to the Owner. Any insurers shall have a minimum A.M. Best rating of A-, VII. Any deductibles or self-insured retentions will be the sole responsibility of the Contractor and will not be the responsibility of or borne by the Owner.

These insurance coverages shall be primary and non-contributing with any other insurance coverage available to the Owner. The Owner shall be granted a waiver of subrogation for the aforementioned coverages (unless specifically prohibited by local statutory requirements) and shall be named as an additional insured on the policies specified above. The policies shall include a cross liability clause.

The Owner shall be furnished insurance certificates or letters of self-insurance evidencing the required coverage requested prior to commencing the Work. The Contractor agrees that it will

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not cancel, reduce, restrict, or materially change the policy in a negative way without giving the Owner 30 days' advance written notice. Any required renewal certificates will be issued within 30 days of the expiration of any of the required insurance. If the Owner requests verification of insurance evidenced in the certificates of insurance from the Contractor's insurance agent or broker, the Contractor shall cause such verification to be promptly furnished to the Owner. The Owner's failure to request, or respond to, any deficient insurance certificate or letter of self-insurance received by the Owner shall not constitute a waiver of the Owner's rights, or the Contractor's insuring obligations, under this Section. No insurance certificate or other evidence of insurance will serve to amend the insurance requirements herein without consent of the Owner.

Insurance coverage required under this Contract shall be additional security for the Contractor's liability and shall not limit such liability; nor shall such requirements be considered the ultimate amount or types of insurance the Contractor should carry.

The Contractor shall assure that if any of the above required insurance coverages are written with annual or policy term aggregate limits, there will be sufficient limits available to meet the per accident or occurrence limits required above throughout the term of this Contract.

The Contractor shall require that its subcontractors carry and pay for insurance in amounts deemed necessary by the Contractor. The Contractor shall be guided by the aforementioned insurance requirements for the Contractor. The Contractor shall cause the appropriate waivers of subrogation and additional insured designations to be secured from such subcontractors to protect the Contractor and the Owner. Any lack of or deficiency in subcontractors' coverage will be the responsibility of the Contractor. Such subcontractors shall promptly furnish evidence of their insurance to the Owner upon its request.

The Contractor shall cause its employees operating their personal automobiles in the performance of the Work to secure the appropriate insurance during such performance. Any lack of or deficiency in such employee's coverage will be the responsibility of the Contractor.

In the event that the Contractor has failed to meet the above insuring requirements, the Owner may cancel this Agreement, at any time, upon at least 24-hours notice to the Contractor, without any liability for such cancellation.

For construction contracts, the Owner, at its option, may purchase Builder's All Risk Insurance for physical damage or loss upon the entire Work at the Work Site. This insurance, if purchased, shall be written for the full insurable value of the Work, subject to self-insured retentions and deductibles, and shall include the interests of the Owner, the Contractor and subcontractors in:

- All materials to be incorporated in the Work and located on the Work Site, and approved off-site warehouses, whether owned by the Owner, the Contractor or its subcontractor
- The Work
- Property of the Owner, located on the Work Site
- Waiver of subrogation against the Contractor and/or its subcontractor

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The Contractor shall give prompt notice of any possible loss covered by the Owner furnished insurance. The Owner, as trustee, shall have the power to adjust and settle any loss on the Owner provided insurance.

31 – PATENTS

Where the Contractor is licensing the technology or is installing an item of process hardware for which the Contractor or its subcontractor owns or licenses the patent, trade secret, copyright or other intellectual property, the Contractor hereby indemnifies and agrees to hold harmless the Owner from and against any claim of patent, trade secret, copyright, or other intellectual property infringement arising out of or in connection with the Work. If the Owner so requests, the Contractor shall defend or settle at the Contractor's expense any infringement suit or proceeding against the Owner or the Owner may assume its own defense, in which event the foregoing indemnity and agreement to hold the Owner harmless shall extend to all of the Owner's costs therein, including, without limitation, attorney's fees, and litigation costs.

32 – OWNER-FURNISHED DRAWINGS

The Contractor shall maintain at the Work Site a copy of the Drawings and Specifications kept current with all changes and modifications and shall at all times give the Owner access thereto and shall deliver upon completion of the Work a complete set thereof suitable for updating the original Drawings by the Owner.

33 – INVENTIONS AND PROPRIETARY INFORMATION

The Contractor grants the Owner all right, title and interest in and to any invention, discovery, or improvement conceived or reduced to practice in connection with the design or other work or services performed under this Contract. The Contractor shall keep signed, witnessed and dated written records of all such inventions, discoveries, or improvements, shall furnish the Owner promptly with complete information in respect thereof, and shall, at the Contractor's expense, execute assignments of any patent applications and any other papers that the Owner requests in obtaining patents or which may relate to any litigation or interference and/or controversy in connection therewith. All Drawings, reports, designs, technical data and all other information emanating from the work or services rendered by the Contractor hereunder (Contractor Developed Information) shall be provided to the Owner and shall become its sole property.

All Contractor Developed Information, and all information becoming known to the Contractor concerning the Owner's inventions, discoveries, improvements or methods, business plans, ventures or practices, enterprises, explorations, mining information, manufacturing or other plant design, location of operation, or any other information affecting the business operations of the Owner (Owner's Proprietary Information) shall be maintained confidential by the Contractor and shall not be published, disseminated, revealed in any manner or to any party, or used in the production, manufacture or operation of any other article, material, mine, plant, business or the performance of services without first obtaining the Owner's written consent, except in the performance of the Work; provided, however, that this paragraph shall not apply to the Owner's Proprietary Information which:

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- Was known to the Contractor at the time same was obtained directly or indirectly from the Owner
- Is acquired by the Contractor from a third party not under obligation of secrecy to the Owner
- Is or becomes published or otherwise in the public domain other than by the Contractor's breach of this Contract
- Concerns the U.S. Federal income tax treatment of this transaction or is materials of any kind (including opinions or other tax analyses) provided to the Seller and relating to such U.S. federal income tax treatment or structure.

The Contractor shall be fully responsible for all of the Owner's Proprietary Information in the Contractor's possession; promptly upon completion of the Work or on demand, the Contractor shall return all documents containing such the Owner's Proprietary Information and reproductions to the Owner.

Notwithstanding anything to the contrary in this Section, the Contractor may disclose the Owner's Proprietary Information pursuant to the requirement of any government or any agency, department or court thereof; provided, however, that the Contractor shall only disclose such information as it is legally compelled to disclose and shall use reasonable commercial efforts to obtain an order or other reliable assurance that confidential treatment shall be accorded to the disclosed information, and notice of such disclosure shall be given to the Owner.

34 – FORCE MAJEURE

Neither party shall be liable for any delay or inability in performing its obligations hereunder if:

- The delay or inability is due to an unforeseeable event beyond the reasonable control of such party such as, but not limited to, fires, acts of God and delays of common carriers (a Force Majeure Event)
- The affected party promptly notifies the other party about the Force Majeure Event

Any extension of time granted to the Contractor pursuant hereto shall be the Contractor's sole and exclusive remedy for any claim resulting from a delay caused by these occurrences.

35 – ASSIGNMENT AND SUBCONTRACTING

The Contractor shall not assign or transfer this Contract or subcontract any of the Work without the Owner's prior written consent. Any attempted or purported assignment, transfer or subcontracting without such consent shall be void. However, no permitted assignment, transfer or subcontracting of Work shall relieve the Contractor of its liability and obligation under this Contract. If the Owner sells or transfers all or a portion of the facility(ies) covered by this Contract, the Owner may assign all or an aliquot portion of this Contract to that purchaser or transferee.

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36 – TITLE AND RISK OF LOSS

Title to and risk of loss for the Work shall pass to the Owner when all the Work is completed by the Contractor and accepted by the Owner.

37 – RIGHTS AND REMEDIES

The rights, powers, elections, and remedies of a party hereunder are cumulative and in addition to those that that party has at law or in equity.

38 – GOVERNING LAW AND JURISDICTION

This Contract and any questions concerning its interpretation and enforcement shall be governed by the laws of the State of Washington without giving effect to any conflict of laws principles. The execution and delivery of this order shall be deemed the transaction of business within the State of Washington for purposes of conferring jurisdiction upon courts located within that state. Both parties consent to the jurisdiction of such courts and to service of process outside the territorial jurisdiction of such courts. Each party irrevocably waives any objection to the jurisdiction, venue, or forum non conveniens of such courts.

39 – CONFLICT

In the event of any conflict or discrepancies among the provisions, obligations, and responsibilities set forth in or arising out of this Contract, any such conflicts or discrepancies shall be resolved in the following order of precedence:

1. Typed terms on the face of the final Contract
2. Technical Drawings and Specifications

40 – WAIVER/MODIFICATION

No claim of waiver, modification, supplement, amendment, consent, or acquiescence with respect to any provision of this Contract or the Work shall be made against the Owner except because of a written instrument executed by or on behalf of the Owner. No waiver of any of the provisions of this Contract by the Owner shall be deemed or shall constitute a waiver of any other provision, nor shall any such waiver constitute a continuing waiver.

41 – SEVERABILITY

If any provision of this Contract is or becomes invalid, illegal, or otherwise void, the remaining provisions of this Contract shall not be affected and shall continue in full force and effect. If such invalidity, illegality, or voidness becomes known or apparent to a party, that party shall promptly notify the other party, and the parties shall promptly negotiate in good faith in an attempt to make appropriate changes to this Contract to achieve as closely as possible, consistent with applicable law, the intent and spirit of that illegal, invalid or void provision, and in the event that, for any reason, such changes are not made, then the invalid, illegal or void provision shall

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be reformed so as to effect, to the fullest extent possible consistent with applicable law, the original intent and spirit of such invalid, illegal or void provision.

42 – NOTICES

Services of all notices under this Contract shall be sufficient if given in writing, personally to a Work Site representative of a party or mailed or faxed to the party at its address set forth in this Contract, or at such address as such party may provide in writing from time to time in accordance with this Section. Any such notice mailed to such address shall be effective when deposited in the United States mail, and duly addressed with postage prepaid.

43 – HEADINGS

The Section headings or titles are included for ease of reference only and do not affect any part of the text or affect its meaning or interpretation.

44 – COUNTERPARTS

This Contract may be executed in one or more counterparts, each of which shall be deemed an original and all of which shall be deemed the same agreement.

ADDITIONAL TERMS FOR ENGINEERING ORDERS

45 – DEFINITIONS

Unless otherwise stated, the following terms shall have the meanings given to them below when used in this Exhibit:

- “Designated Representative” means a person identified in writing as the Contractor’s designated representative with full authority to act on behalf of such party in connection with this Contract. Owner’s designated representative is an acting Director/Manager employed by the Owner.
- “Purchase Order Revision and/or Contract Change Order ” means a written authorization or change order to the Contractor issued by the Owner’s Designated Representative, authorizing a change in the Services, an adjustment in the time for completion of the Services or other modification to the Contract.
- “Services” means:
 1. All engineering and procurement services required to be performed from time to time by the Contractor pursuant to this Contract
 2. All necessary labor required to execute the Services, but shall not include field construction of permanent facilities

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46 – DESCRIPTION OF THE SERVICES

The Contractor shall:

- Perform all work per the released drawings and specifications provided by Owner's subcontractors (The Intelligence Group and B&T Design and Engineering Co.) necessary to accomplish the Services, including the preparation of construction estimates as requested by the Owner
- Provide all supporting documentation requested by the Owner to support the detailed design calculations (the Contractor shall be responsible for detailed checking and quality of the design)
- Manage the total effort required to meet the objectives of this Contract, including preparation of cost projections and schedules; control of expenditures and personnel to meet the schedule; regular reporting of progress, schedule and costs; and prompt notification in advance of potential deviations

47 – OWNER INSTRUCTIONS

Occasionally, the Owner may issue instructions to the Contractor with respect to the manner in which the Services are to be performed. Such instructions are provided to insure that the Services meet the intent of this Contract and are not considered Purchase Order Revision and/or Contract Change Order unless submitted in writing and so identified by the Owner. Unless the Contractor notifies the Owner within 1 day of the Contractor's receipt of such instructions that the Contractor considers such instructions to constitute a Purchase Order Revision and/or Contract Change Order, the Contractor shall execute such instructions within the then current budget and schedule. In the event of such notice by the Contractor, the Contractor and the Owner will promptly negotiate a mutually satisfactory determination of the need for a Purchase Order Revision and/or Contract Change Order.

48 – REPRESENTATIONS AND WARRANTIES

The Contractor represents and warrants that it:

- Is experienced in performing and competent to perform the Services, and has employees in sufficient skill and number to perform the Services as required by this Contract
- Shall furnish or cause to be furnished in sufficient numbers all skilled, supervisory, administrative, professional and managerial personnel as may be necessary to perform the Services competently and efficiently
- Shall exercise due care at all times to directly or indirectly employ for the Services only those persons who are technically competent, physically and mentally fit, careful and efficient workers who are and remain acceptable to the Owner

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49 – SUSPENSION OF WORK

The Owner shall have the right for any reason, on written notice to the Contractor, to suspend all or any portion of the Services for a period up to 60 days. In the event of such suspension, the Contractor shall cease work in accordance with such notice, except for such work as may be necessary to protect the Services. If at the end of such suspension period, the Owner has not authorized a resumption of Services, the suspension shall be deemed a cancellation for convenience by the Owner pursuant to a Cancellation Notice given at the end of that suspension period or such earlier date as the Owner notifies the Contractor that the Owner does not want resumption of the Services.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 011000—Summary

PART 1 – GENERAL

1.01 SCOPE

- A. The accompanying Drawings and Specifications show and describe the location and type of work to be performed under this project.
 - 1. The work under this Contract is to provide all labor and to furnish and/or install all materials and equipment, as may be required to complete the work as installed, tested, fully operational, ready for use, and as described in these documents.
 - 2. The work required for this project as shown in the drawings and described in the Specifications include Implementation of Design Option 1 or Design Option 2.
- B. To the extent reasonable, the Specifications are written in the imperative. Stated actions are used to indicate mandatory contract requirements on the part of the Contractor.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as specified in this Section. Work related to this Section is described throughout the Specifications.

1.03 LOCATION

- A. The work area for the Jorgensen Forge Outfall Site is located at 8531 E. Marginal Way S., Seattle, Washington 98108 and adjacent in-river/shoreline area along Lower Duwamish Waterway.

1.04 ACCESS TO SITE

- A. The Contractor shall have access to the work area via the main security gate on E. Marginal Way S.

1.05 WORK BY OTHERS ON THIS PROJECT

- A. None.

1.06 PRE-ORDERED MATERIALS

- A. Procurement of steel sheet piling and corners required for either Options 1 or 2 shall be the responsibility of Owner.

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Section 011000—Summary

1.07 EXISTING MATERIALS

- A. None.

1.08 SPECIAL ALLOWANCES

- A. For the purpose of providing a common proposal for all Bidders, and for that purpose only, the Owner has estimated an amount of \$50,000 for force account work for unforeseen conditions. The Owner has entered the amount on the Bid Proposal Form to become a part of the base proposal by all Bidders.
- B. When required, the allowance will be transferred to the Contractor in accordance with the force account procedure as outlined in Section 007200 – General Conditions and as stipulated in Section 012000 – Price and Payment Procedures.

1.09 ENGINEERING AND INSPECTION

- A. The engineers, inspectors, and consultants of the Owner will perform the necessary inspection work except as otherwise specified in the Contract Documents. Refer to Section 014500 – Quality Control for general requirements.
- B. Representatives of regulatory agencies and owner representatives shall be allowed on the work area to inspect the work at any time.

1.10 COORDINATION

- A. Coordinate marine activity and vessel movements with the U.S. Coast Guard, in consultation with Owner.
- B. Other Contractors: The Contractor shall be responsible for coordinating work area construction activities with other project work occurring under separate contracts. The Contractor shall coordinate site construction activities including work area access, parking, and lay down areas with other project work occurring under separate contracts, and shall keep disruptions to other project work under separate contracts to a minimum.
- C. All costs associated with coordination of the work shall be considered incidental to the lump sum and unit prices set forth in the Proposal.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 011400—Work Restrictions

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section describes the uses and restrictions for the premises, staging and stockpile areas, parking, vehicle and equipment access, work hours, and inadvertent discovery of archaeological materials.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as specified in this Section. Work related to this Section is described throughout these Specifications.

1.03 USE OF PREMISES

- A. Use of the Jorgensen Forge Outfall Site area: Limit use of premises to work in areas indicated. Do not disturb portions of the Jorgensen Forge Outfall Site, beyond areas in which the work is indicated. Disturbance outside the Jorgensen Forge Outfall Site limits is only to designated access points and storage areas as shown on the Drawings or specified herein.
 - 1. Limits: Confine construction operations to limits as shown on the Drawings. In those locations where existing vegetation is to remain, the Contractor must work around and protect the material from damage.
 - 2. Owner Occupancy: Allow for Jorgensen Forge access to the work area, but the public shall be restricted. The Boeing Company (Boeing) shall also be allowed access, in coordination with the Owner.
 - 3. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to the Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a) Schedule deliveries to minimize the use of driveways and entrances.
 - b) Schedule deliveries to minimize space and time requirements or the storage of materials and equipment on site.
 - 4. Move any stored products under Contractor's control that interfere with the operations of the Owner or access to adjacent properties.
 - 5. Jorgensen Forge Security Procedures: Jorgensen Forge's security procedures require that all visitors to the upland facility comply with a

DIVISION 01—GENERAL REQUIREMENTS

Section 011400—Work Restrictions

Visitor Security Plan in accordance with the security requirements imposed by Jorgensen Forge's contracts with the U.S. Navy, U.S. Navy suppliers, and other defense-related firms. The Visitor Security Plan establishes specific requirements for visitor security and access to the facility. Jorgensen Forge also requires that all visitors have the appropriate safety training for the work they will perform and are citizens of the United States. All non-U.S. citizens must be escorted at all times. A chain-link fence secures the entire eastern and western boundaries of the Facility adjacent to Jorgensen Forge Outfall site. Temporary fencing will be to separate Contractor activities from the Facility. In accordance with the Visitor Security Plan, Jorgensen Forge requires that a fence be maintained and secured during completion of the removal action activities to restrict access to individuals with the appropriate security clearance and safety training. Any ingress or egress through this fence or the main access gate will require clearance by a security guard and possession of a visitor badge. Jorgensen Forge will provide the necessary safety training for all visitors that will enter the Facility through this fence or the main access gate on the eastern portion of the facility. Visitors must don the appropriate safety gear (as communicated during the safety training) during their access on the facility.

- B. Protected Areas: The following areas within the project limits are to be protected from any and all negative impacts during construction including materials storage and silt-laden runoff:
 - 1. Existing Boeing sheetpile wall
 - 2. Existing structures near the project area
 - 3. Existing fencing near the project area

1.04 STAGING AND STOCKPILE AREAS

- A. For purposes of existing rip rap that may require movement, staging and stockpile areas will be as indicated on drawings. Contractor's use of these areas shall be limited to purposes directly related to the construction of the Project. Prior to mobilization, the Contractor shall submit a proposal at the Pre-Construction Meeting for review by the Owner of these (and other) areas indicating specific use, access, restoration, and anticipated duration of use. No use of these areas is permitted until Owner provides written approval of Contractor's proposal.
- B. Contractor may provide legal staging and storage areas off site at Contractor's discretion. If the Contractor opts for providing off-site storage areas, it shall:
 - 1. Provide Owner with locations for approval.

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Section 011400—Work Restrictions

2. Protect downstream areas by covering or otherwise containing stockpiles of loose materials.
3. Provide Owner with a release from property owner that states that the off-site work area was returned in an acceptable condition and all obligations associated with its use have been met.

1.05 RESTORATION CLAUSE

- A. Restore all areas disturbed by the construction process. All ingress or egress points that are disturbed will have to be regraded, reseeded, replanted, or repaved to restore them to original or better conditions.
- B. Unless otherwise designated, protect all existing site features to remain from potential Contractor damage above and below grade. If unavoidable damage occurs, notify the Owner immediately and a decision will be rendered as to how the Contractor is to replace or repair the damage at the Contractor's expense.
- C. Surround protected areas with highly visible fencing prior to the start of work.

1.06 NEW AND EXISTING WORK

- A. Unless otherwise noted, any new work authorized by the Owner shall be assumed to be performed in conditions corresponding to existing conditions and shall utilize similar material, workmanship, grade, and finish. Existing work shall be cut, drilled, altered, removed or temporarily removed, and replaced for performance of work under the Contract. Work replaced shall match similar existing work. Work remaining in place that is damaged during this Contract shall be restored to the condition at time of award of Contract, or replaced with new work as determined by the Owner. Patch existing work as required for proper interface.

1.07 PARKING

- A. Parking for personnel on the work will be as determined by the Owner. The Contractor can obtain additional off-site parking, material stockpiling, and storage with the approval of the Owner. The Contractor will be responsible for ensuring that no nuisance is created for the Owner or adjacent properties through use of the streets for parking or workers' access.

1.08 TRUCK AND EQUIPMENT ACCESS

- A. To avoid traffic conflict with local residents, and to avoid overloading of streets and driveways elsewhere on the Owner's property, limit the access of trucks and equipment to a route as approved by the Owner prior to mobilization.

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Section 011400—Work Restrictions

- B. Vehicular traffic is limited to the area within the project limits except areas designated for access.

1.09 INADVERTENT DISCOVERY OF ARCHAEOLOGICAL MATERIALS

- A. An Inadvertent Discovery Plan (IDP) governing actions to be taken if archaeological resources are discovered during construction will be provided by the Owner.
- B. The IDP shall be available at the work location whenever ground disturbing activities are underway.
- C. If archaeological materials are discovered, stop work in accordance with the IDP and Washington law (Revised Code of Washington [RCW] 27.50).

1.10 WORK HOURS

- A. Work accomplished during work hours listed below:
 - 1. Regular Weekday Hours: 7:00 AM to 9:00 PM, or as defined elsewhere in these Contract documents or by Permits.
- B. Submit a schedule of working hours to the Owner at the Pre-Construction Meeting for acceptance prior to the start of any work in the Jorgensen Outfall Site. Do not perform any activities outside of these hours without prior approval of the Owner's Representative. Said approval shall be requested no later than 48 hours prior to the proposed work outside of these hours.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 012000—Price and Payment Procedures

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes payment procedures, payment pricing, and measurement procedures.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. Work related to this Section is described in the following Sections:
 - 1. Section 004143—Bid Proposal Form
 - 2. Section 007200—General Conditions
 - 3. Section 011000—Summary
- B. Individual submittals are required in accordance with the pertinent sections of these Specifications

1.03 PAYMENT PROCEDURES

- A. Monthly pay estimates shall be addressed to the Owner's Representative Miles Dyer and hand-delivered to him at the Jorgensen Forge Facility; mailed to him at 8531 E. Marginal Way South, Seattle, Washington, 98108; or submitted electronically to him using Adobe PDF file format. PDF files can be e-mailed to mdyer@jorgensenforge.com.
- B. Monthly pay estimates shall clearly identify the work performed for the given time period based on a percentage of work completed for lump sum bid items as presented in the approved "Schedule of Values" and actual quantities installed for unit price items. Pay estimates which fail to meet these requirements shall be subject to the requirements of Section 007200—General Conditions.

1.04 PAYMENT PRICING

- A. Pricing for the various lump sum or unit prices in Section 004143—Bid Proposal Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Documents.
- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA), and the U.S. Longshore and Harbor Workers' Compensation Act.

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Section 012000—Price and Payment Procedures

- C. No separate payment will be made for any item that is not specifically set forth in the Proposal Bid Form, and all costs therefore shall be included in the prices named in the Proposal Bid Proposal Form for the various appurtenant items of work. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices proposal. Payment for work under one item will not be paid for under any other item.
- D. The Owner reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes shall govern the compensation.

1.05 MEASUREMENT FOR PAYMENT

- A. Design Option 1 Base Bid Items. Measurement for Base Bid Item payments will be at the lump sum or unit price as stipulated in the Bid Form for the items listed below. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work specified.
 - 1. Bid Item No. 1 - Mobilization and Demobilization
 - a) Measurement: Mobilization and Demobilization of construction equipment and costs of preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to the Jorgensen Forge Outfall Site; for the establishment of its field offices, and other facilities necessary for work on the Project; for premiums on insurance for the Project and for other work and operations which it must perform or costs it must incur before beginning production work on the various items at the Jorgensen Forge Outfall Site. This item also includes the removal of equipment, remaining materials and disposal of construction related waste/debris from the Jorgensen Forge Outfall Site and to clean and restore all work areas, storage, and staging locations to their preconstruction condition or better. Payment for this bid item shall be measured as a lump sum.
 - b) Payment: Mobilization and Demobilization shall be paid at the lump sum price listed in the bid, but not to exceed a maximum of 10 percent of the other bid items in the Base Bid (excluding mobilization and demobilization). Incremental payment shall be made as follows:
 - 1) 40 percent after completion of 5 percent of the total Contract amount of other bid items have been earned.

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Section 012000—Price and Payment Procedures

- 2) 40 percent after completion of 20 percent of the total Contract amount of other bid items have been earned.
 - 3) 20 percent after completion of all work in the Jorgensen Forge Outfall Site has been completed, including cleanup and acceptance of the work, as shown on the Drawings and as specified in the Specifications, by the Owner.
2. Bid Item No. 2 Site Preparation
 - a) Measurement for "Site Preparation" will be made on a lump sum basis. "Site Preparation" shall include all labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
 - b) Payment for "Site Preparation" will be made at the contract lump sum price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required to setup and maintain temporary fencing, setup and maintain a truck wheel wash, setup of stockpile areas, and decontamination of equipment and staging/stockpiling areas as specified in the Specifications, including, but not limited to: contractor construction staking, contractor health and safety, quality control, and environmental controls.
3. Bid Item No. 3 – Removal/Stockpile of Existing Rip Rap
 - a) Measurement for "Removal/Stockpile of Existing Rip Rap" will be made on a lump sum basis. "Removal/Stockpile of Existing Rip Rap" shall include all labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
 - b) Payment for "Removal/Stockpile of Existing Rip Rap" will be made at the contract lump sum price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required to remove and stockpile riprap material as necessary to perform required wall installation, including, but not limited to: Contractor construction staking, Contractor health and safety, quality control, and environmental controls. Stockpile shall be placed on Boeing property as shown in Contract Drawings.
4. Bid Item No. 4 – Installation of In-River SSP
 - a) Measurement for "Installation of In-River SSP" will be made on a lineal feet basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform

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the work, as shown on the Drawings and specified in the Specifications.

- b) Payment for "Installation of In-River SSP" will be made at the contract lineal feet price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required for the installation of the In-River SSP (and ancillary features) as shown on the Drawings and specified in the Specifications, including, but not limited to: Contractor health and safety, quality control, and environmental controls.

5. Bid Item No. 5 – Installation of Upland SSP

- a) Measurement for "Installation of Upland SSP" will be made on a lineal feet basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
- b) Payment for "Installation of Upland SSP" will be made at the contract lineal feet price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required for the installation of the upland wall as shown on the Drawings and specified in the Specifications, including, but not limited to: Contractor health and safety, quality control, and environmental controls.

6. Bid Item No. 6 – Installation of Scour Protection

- a) Measurement for "Installation of Scour Protection" will be made on a lump sum basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
- b) Payment for "Installation of Scour Protection" will be made at the Contract lump sum price as stated in the proposal and will be full compensation for furnishing all labor materials, equipment, and incidentals required to install scour protection as specified in the Specifications, including, but not limited to: contractor health and safety, quality control, and environmental controls.

7. Bid Item No. 7 – Surveying

- a) Measurement for "Surveying" will be made on a lump sum basis. This item shall be full compensation for labor, materials,

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equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.

- b) Payment: Payment for "Surveying" will be made at the Contract lump sum price as stated in the Bid and will be full compensation for furnishing all labor, materials, equipment, and incidentals required to survey the operations as specified in the Specifications, including, but not limited to: contractor health and safety, quality control, and environmental controls.

8. Bid Item No. 8 – Removal of In-River SSP

- a) Measurement for "Removal of In-River SSP" will be made on a lump sum basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
- b) Payment: Payment for "Removal of In-River SSP" will be made at the Contract lump sum price as stated in the Bid and will be full compensation for furnishing all labor, materials, equipment, and incidentals required to remove in-river SSP as shown on the drawings and specified in the Specifications, including, but not limited to: contractor health and safety, quality control, and environmental controls.

9. Bid Item No. 9 – Allowance for Unanticipated Conditions (Force Account)

- a) This item establishes a fixed allowance for necessary work related to unforeseen conditions and other unanticipated work in accordance with Section 011000—Summary, Paragraph 1.08 Special Allowances and Section 1-09.6 of the Washington State Department of Transportation (WSDOT)/American Public Works Association (APWA) Standard Specifications. Force Account Work is work not identified at the time of Bid and will be paid on a time and material basis, per Section 1-09.6. None of this allowance may be used or the entire monetary allowance of this bid item may be used and any amount only as authorized by the Owner.
- b) For payment purposes, any work under this item will have to be specifically approved prior to the start of work and the Contractor will also be required to submit a detailed breakdown for all work included in the item to be submitted and approved by the Owner prior to any payments for this item of work.

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Section 012000—Price and Payment Procedures

- B. Design Option 2 Base Bid Items. Measurement for Base Bid Item payments will be at the lump sum or unit price as stipulated in the Bid Form for the items listed below. Payment shall be considered full compensation for furnishing all labor, materials, and equipment to complete the work specified.

1. Bid Item No. 1 - Mobilization and Demobilization

- a) Measurement: Mobilization and Demobilization of construction equipment and costs of preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to the Jorgensen Forge Outfall Site; for the establishment of its field offices, and other facilities necessary for work on the Project; for premiums on insurance for the Project and for other work and operations which it must perform or costs it must incur before beginning production work on the various items at the Jorgensen Forge Outfall Site. This item also includes the removal of equipment, remaining materials and disposal of construction related waste/debris from the Jorgensen Forge Outfall Site and to clean and restore all work areas, storage, and staging locations to their preconstruction condition or better. Payment for this bid item shall be measured as a lump sum.
- b) Payment: Mobilization and Demobilization shall be paid at the lump sum price listed in the bid, but not to exceed a maximum of 10 percent of the other bid items in the Base Bid (excluding mobilization and demobilization). Incremental payment shall be made as follows:
 - 1) 40 percent after completion of 5 percent of the total Contract amount of other bid items have been earned.
 - 2) 40 percent after completion of 20 percent of the total Contract amount of other bid items have been earned.
 - 3) 20 percent after completion of all work in the Jorgensen Forge Outfall Site has been completed, including cleanup and acceptance of the work, as shown on the Drawings and as specified in the Specifications, by the Owner.

2. Bid Item No. 2 Site Preparation

- a) Measurement for "Site Preparation" will be made on a lump sum basis. "Site Preparation" shall include all labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.

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Section 012000—Price and Payment Procedures

- b) Payment for "Site Preparation" will be made at the contract lump sum price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required to setup and maintain temporary fencing, setup and maintain a truck wheel wash, setup of stockpile areas, and decontamination of equipment and staging/stockpiling areas as specified in the Specifications, including, but not limited to: contractor construction staking, contractor health and safety, quality control, and environmental controls
- 3. Bid Item No. 3 – Removal/Stockpile of Existing Rip Rap
 - a) Measurement for "Removal/Stockpile of Existing Rip Rap" will be made on a lump sum basis. "Removal/Stockpile of Existing Rip Rap" shall include all labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
 - b) Payment for "Removal/Stockpile of Existing Rip Rap" will be made at the contract lump sum price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required to remove and stockpile riprap material necessary to perform required wall installation, including, but not limited to: Contractor construction staking, Contractor health and safety, quality control, and environmental controls. Stockpile shall be placed on Boeing property as shown in Contract Drawings.
- 4. Bid Item No. 4 – Installation of Upland SSP
 - a) Measurement for "Installation of Upland SSP" will be made on a lineal feet basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
 - b) Payment for "Installation of Upland SSP" will be made at the contract lineal feet price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required for the installation of the Upland SSP (and ancillary features) as shown on the Drawings and specified in the Specifications, including, but not limited to: Contractor health and safety, quality control, and environmental controls.

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5. Bid Item No. 5 – Surveying
 - a) Measurement for “Surveying” will be made on a lump sum basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
 - b) Payment: Payment for “Surveying” will be made at the Contract lump sum price as stated in the Bid and will be full compensation for furnishing all labor, materials, equipment, and incidentals required to survey operations as specified in the Specifications, including, but not limited to: contractor health and safety, quality control, and environmental controls.
6. Bid Item No. 6 – Removal of Upland SSP
 - a) Measurement for “Removal of Upland SSP” will be made on a lineal feet basis. This item shall be full compensation for labor, materials, equipment, supplies, and incidentals required to perform the work, as shown on the Drawings and specified in the Specifications.
 - b) Payment for “Removal of Upland SSP” will be made at the contract lineal feet price as stated in the bid and will be full compensation for furnishing all material, labor, equipment, and incidentals required for the removal of north/south extensions of Upland SSP as shown on the Drawings and specified in the Specifications, including, but not limited to: Contractor health and safety, quality control, and environmental controls.
7. Bid Item No. 7 – Allowance for Unanticipated Conditions (Force Account)
 - a) This item establishes a fixed allowance for necessary work related to unforeseen conditions and other unanticipated work in accordance with Section 011000–Summary, Paragraph 1.08 Special Allowances and Section 1-09.6 of the Washington State Department of Transportation (WSDOT)/American Public Works Association (APWA) Standard Specifications. Force Account Work is work not identified at the time of Bid and will be paid on a time and material basis, per Section 1-09.6. None of this allowance may be used or the entire monetary allowance of this bid item may be used and any amount only as authorized by the Owner.

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- b) For payment purposes, any work under this item will have to be specifically approved prior to the start of work and the Contractor will also be required to submit a detailed breakdown for all work included in the item to be submitted and approved by the Owner prior to any payments for this item of work.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 013100—Project Management and Coordination

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes the required attendees, suggested agendas, and locations for the Preconstruction Meeting and progress meetings.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as specified in this Section. Work related to this Section is described throughout the Specifications.

1.03 PRECONSTRUCTION MEETING

A. Notification

- 1. Following the award, the Owner will notify the selected bidder of the time and date of a Preconstruction Meeting.

B. Location

- 1. The Preconstruction Meeting will be conducted at the Jorgensen Forge property, located at 8531 E. Marginal Way South, Seattle, Washington 98108.

C. Attendance

- 1. The following parties are requested to attend:
 - a) Owner Representatives:
 - 1) Project Manager
 - 2) Project Engineers
 - 3) Contract Administrator
 - 4) Consultants
 - 5) Inspectors
 - 6) Other Owner personnel
 - b) Contractor Representatives:
 - 1) Project Manager (Superintendent)

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Section 013100—Project Management and Coordination

- 2) Contract Administrator
 - 3) Major Subcontractors
 - 4) Major Suppliers
 - c) Third Party Representatives
 - 1) U.S. Environmental Protection Agency (EPA) representatives
2. Suggested Agenda:
- a) The Owner will discuss pertinent detail information paralleling the Contract Document requirements such as:
 - 1) The work: sequence, phasing, and occupancy
 - 2) Job communications
 - 3) Contractor's use of the premises
 - 4) Special procedures for the Jorgensen Forge Outfall Site
 - 5) Procedures and processing:
 - a) Field decisions
 - b) Proposal requests
 - c) Submittals
 - d) Change orders
 - e) Application for payment
 - f) Other
 - 6) Record Documents
 - 7) Construction facilities, controls, and construction aids
 - 8) Temporary utilities
 - 9) Security procedures
 - 10) Safety and first-aid procedures

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Section 013100—Project Management and Coordination

- 11) Housekeeping procedures
- 12) Other
- b) The Contractor will present and distribute information indicating:
 - 1) List of major subcontractors and suppliers
 - 2) Preliminary construction schedule
 - 3) Draft Schedule of Values

1.04 PROGRESS MEETINGS

- A. The Owner will schedule and administer weekly progress meetings throughout progress of the work.
- B. The Owner will arrange meetings, prepare standard agenda with copies for participants, preside at meetings, record minutes, and distribute copies within 5 working days to the Contractor, meeting participants, and others affected by decisions made.
- C. Attendance is required for the Contractor's job superintendent, major subcontractors and suppliers, the Owner's Project Manager, Designer, Construction Manager, other Owner representatives, and EPA or other regulatory agencies or their representatives, as appropriate, to the agenda topics for each meeting.
- D. Standard Agenda
 - 1. Review minutes of previous meeting.
 - 2. Review of work progress.
 - 3. Review of field observations, problems, and decisions.
 - 4. Identification of problems that impede planned progress.
 - 5. Progress schedule (1 week ahead; 1 week back).
 - 6. Effect of proposed changes on progress schedule and coordination.
 - 7. Corrective measures to regain projected schedules.
 - 8. Planned progress during succeeding work period.
 - 9. Safety issues.

DIVISION 01—GENERAL REQUIREMENTS

Section 013100—Project Management and Coordination

10. Maintenance of quality and work standards.
11. Demonstration that the Jorgensen Forge Outfall Site – SSP Installation record drawings are up-to-date.
12. Pay request (as required).
13. Other business relating to the work.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

3.01 PARTNERING

- A. Construction partnering is a process of improving communication and better understanding the goals and objectives of all parties in a construction project. It is also a process to avoid disputes by working together to resolve issues. Although a formal partnering program is not planned for the Jorgensen Forge Outfall Site, an informal and voluntary partnering process is desired.
- B. The Owner will meet with the selected Contractor near the time of the Preconstruction Meeting and the parties jointly determine the partnering program for the project or to forego a partnering program.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS
Section 013200—Construction Progress Documentation

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes construction scheduling procedures.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as specified in this Section. Work related to this Section is described throughout the Specifications.

1.03 CONSTRUCTION SCHEDULE

- A. The Contractor shall prepare a construction schedule showing specific tasks, dates, and the critical path necessary for completion of the project within the contract time limits. The preliminary schedule will be submitted with the Proposal, and revised as necessary before the Preconstruction Meeting. If necessary, the Contractor shall revise the schedule immediately thereafter (within 1 day). Upon the Owner's acceptance, the schedule shall become the Project Construction Schedule. The Project Construction Schedule will be reviewed and updated at each progress meeting. All changes to the Project Construction Schedule of more than 1 working day shall be documented on the updated Project Construction Schedule and shall be submitted both in writing and electronic format (e-mail) and submitted to the Owner. The Project Construction Schedule, as accepted by the Owner, will be an integral part of the Contract and will establish interim completion dates for the various activities under the Contract. The Project Construction Schedule shall be submitted weekly in paper and electronic formats.
- B. The Schedule format shall be a network analysis of the critical path method (CPM). The Schedule shall identify the work clearly, showing the detailed items of work. The breakdown of work shall, at a minimum, show all of the items identified in the Schedule of Values and significant design, manufacturing, construction, and installation activities. Submittals and long lead items shall be included and the relationship between submittal and the work item shall be identified. The relationship between the work items shall clearly show the starting dates, and include all details of the work within the time frame shown.
- C. The Schedule shall include sufficient time for cleaning, punch list review and completion of punch list items prior to the designated substantial completion date.
- D. The Schedule shall be used to justify time extension days requested by the Contractor. For additional days requested, the Schedule shall be detailed enough

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Section 013200—Construction Progress Documentation

to identify the work item(s) affected and the relationship to the changed or added work.

- E. Should any activity not be completed by the stated scheduled date, the Owner will have the right to require the Contractor to expedite completion of the activity by whatever means appropriate and necessary, without additional compensation to the Contractor.

1.04 ON-SITE DOCUMENTS

- A. Maintain at the Jorgensen Forge Outfall Site in good order for ready reference by the Owner, one complete record copy of the Contract Documents, including the Addenda, Change Orders, and all working drawings, Progress Schedule, and other approved submittals. Generate and keep on-site all documents and reports required by applicable permit conditions.
- B. The Contract record drawings shall be marked to record all changes made during construction. The location of all existing or new underground piping, valves and utilities, and obstructions as located during the work, shall be appropriately marked on the ground until the Contractor incorporates the actual field location dimensions and coordinates into the record drawings for the Jorgensen Forge Outfall Site. The Project's record drawings shall be updated on a weekly basis and before elements of the work are covered or hidden from view. After the completion of the work or portions of the work and before requesting final inspection, the record copy of the Drawings shall be given to the Owner. The Owner reserves the right to withhold progress payments until such time as the record drawings are brought current.

1.05 DOCUMENTATION OF DAILY QUANTITIES

- A. Meet with the Inspector daily to agree upon the quantities of materials or work completed during the day's work. Both parties shall initial the Project Daily Quantities Report that shows there is agreement (or a lack of agreement) over the amount of work performed that day.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 013300—Submittal Procedures

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes the procedures and format for submitting and transmitting submittals.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this Section. Work related to this Section is described throughout the Specifications.
- B. Individual submittals required in accordance with the pertinent sections of these Specifications. Other submittals may be required during the course of the project and are considered part of the normal work to be completed under the Contract.

1.03 SUBMITTALS

- A. The following list may be incomplete and it is the Contractor's responsibility to ensure that the Contractor has met all conditions of the Contract requirements.

PROCUREMENT AND CONTRACTING REQUIREMENTS

Division 00 – Procurement and Contracting Requirements

Section 000110 – Table of Contents

Section 001113 – Advertisement for Proposals

Section 002100 – Instructions to Bidders

Section 004143 – Proposal Bid Form

Section 004313 – Proposal Security Form

Section 005200 – Agreement Form

Section 007100 – Contracting Definitions

Section 007200 – General Conditions

DIVISION 01—GENERAL REQUIREMENTS

Section 013300—Submittal Procedures

TECHNICAL SPECIFICATIONS

Division 01 – General Requirements

Section 011000 – Summary

Section 011400 – Work Restrictions

Section 012000 – Price and Payment Procedures

Section 013100 – Project Management and Coordination

Section 013200 – Construction Progress Documentation

Section 013300 – Submittal Procedures

Section 013500 – Special Procedures

Section 013529 – Health, Safety, and Emergency Response Procedures

Section 014126 – Permits

Section 014500 – Quality Control

Section 015000 – Temporary Facilities and Controls

Section 017000 – Execution and Closeout Requirements

Section 017419 – Waste Management and Disposal

Section 017423 – Decontamination

Section 017600 – Protecting Installed Construction

Division 02 – Existing Conditions

Section 022100 – Surveys

Section 027100 – Water Management and Treatment

Division 31 – Earthwork

Section 311000 – Site Clearing

Section 312300 – Excavation and Stockpiling

Section 315200 – Steel Sheet Pile

DIVISION 01—GENERAL REQUIREMENTS

Section 013300—Submittal Procedures

Division 35 – Waterway and Marine Construction

Section 354300 – Scour Protection

PART 2 – PRODUCTS

2.01 COMPLIANCE

- A. Failure to comply with these requirements shall be deemed as the Contractor's agreement to furnish the exact materials specified or materials selected by the Owner, based on these Specifications.

2.02 SHOP DRAWINGS

- A. The Owner will not accept shop drawings that prohibit the Owner from making copies for its own use.
- B. Quality: Prepare shop drawings accurately to scale sufficiently large to indicate all pertinent features of the products and the method of fabrication, connection, erection, or assembly with respect to the work.
- C. All drawings submitted to the Owner for approval shall be drawn on full-size (ANSI D) copy or half-scale sets on 11 inches by 17 inches, bond paper only. Electronic versions of the drawings will also be submitted in the following formats on CD-ROM:
 - 1. DWG
 - 2. TIF
 - 3. PDF – Formatted to print to half-scale set on 11-inch by 17-inch paper
- D. Type of Prints Required:
 - 1. Submit four paper copies of all shop drawings or supplemental working drawings in accordance with the General Conditions.
- E. In lieu of the above, submittals typically provided on paper may be submitted electronically as PDFs.

2.03 MANUFACTURERS' LITERATURE

- A. Submit four paper copies of manufacturers' literature for approval.

DIVISION 01—GENERAL REQUIREMENTS

Section 013300—Submittal Procedures

- B. In lieu of the above, submittals typically provided on paper may be submitted electronically as PDFs. The manufacturer's original electronic issue is preferred.

2.04 SAMPLES

- A. The sample submitted shall be the exact or precise article proposed to be furnished.

2.05 SUBSTITUTIONS

- A. Catalog data for equipment approved by the Owner does not in any case supersede the Contract Documents. The approval by the Owner shall not relieve the Contractor from responsibility for deviations from Drawings or Specifications, unless the Contractor has in writing called to the Owner's attention to such deviations at the time of the submission, nor shall it relieve it from responsibility for errors of any sort in the items submitted. The Contractor shall check the work described by the catalog data with the Contract Documents for deviations and errors.

PART 3 – EXECUTION

3.01 TRANSMITTALS

- A. Environmental Management System (EMS) practices such as reducing the use of paper by moving to fully electronic transmittal of project documents and implementation of waste reduction and recycling programs at all work sites will be incorporated into the project. Electronic submittals for the documents under this project will be used to the extent practicable to minimize consumption of paper for copies and submittals. Further, electronic communication, documentation, and filing will be utilized as much as possible during the course of construction.
- B. Preparation: A separate submittal form shall be prepared for each product or procedure and shall be further identified by referencing the Specification Section and paragraph number and each submittal shall be numbered consecutively.
- C. The Owner intends to complete the review of all submittals within 2 working days of receipt. When incomplete or rejected submittals are returned to the Contractor, the Contractor shall make appropriate revisions and re-submit. Review of re-submittals will be completed within 1 working day. The Contract time shall not be extended on the basis that the Contractor experienced delays due to rejection of submittals.
- D. All submittals shall be dated, signed, and certified by the Contractor as being correct and in conformance with the Contract Documents. The Owner's review of Contractor submittals shall not relieve the Contractor of the entire

DIVISION 01—GENERAL REQUIREMENTS

Section 013300—Submittal Procedures

responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for any errors in Contractor submittals.

- E. All equipment, materials, and articles incorporated into the permanent Work:
 - 1. Shall be new, unless the Special Provisions or Standard Specifications permit otherwise.
 - 2. Shall meet the requirements of the Contract and be approved by the Owner.
 - 3. May be inspected or tested at any time during their preparation and use.
 - 4. Shall not be used in the Work if they become unfit after being previously approved.

3.02 COORDINATION

- A. Submit shop and detail drawings in related packages. All equipment or material details which are interdependent or are related in any way must be submitted indicating the complete installation. Submittals shall not be altered once approved for Construction. Revisions shall be clearly marked and dated. Major revisions must be submitted for approval.
- B. Thoroughly review all shop and detail drawings, prior to submittal, to assure coordination with other parts of the work. The Contractor's failure to do this will be the cause for rejection. Submittals shall bear this approval stamp and initials.
- C. Components or materials which require shop drawings and which arrive at the job site prior to approval of shop drawings shall be considered as not being made for this project and shall be subject to rejection and removal from the premises.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 013500—Special Procedures

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This section includes general requirements and procedures for compliance with certain U.S. Environmental Protection Agency (EPA) Green Remediation Practices.

1.02 DEFINITIONS

- A. Equipment that is Not in Active Use: Equipment that is on standby for more than 5 minutes.

1.03 SCOPE OF WORK

- A. The Contractor shall follow green remediation practices to the extent practicable.
- B. The Contractor shall document green remediation practices or specify how these practices are infeasible.

1.04 SUBMITTALS

NOT USED

1.05 REFERENCES

- A. EPA, 2009. U.S. Environmental Protection Agency, Region 10 Superfund, RCRA, LUST, and Brownfields Clean and Green Policy. Available from: <http://yosemite.epa.gov/R10/extaff.nsf/%20programs/greencleanups>. Accessed online September 28, 2011.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

3.01 GREEN REMEDIATION ITEMS

- A. The Contractor shall use technologies and practices that are sustainable in accordance with EPA Region 10 Green Cleanups (<http://yosemite.epa.gov/R10/extaff.nsf/programs/greencleanups>).
- B. The Contractor shall use cleaner engines, cleaner fuel, and cleaner diesel control technology on diesel-powered equipment with engines greater than 50 horsepower (HP), where practicable and feasible. The preference is for clean diesel technologies and alternative fuels, such as biodiesel or natural gas-powered vehicles. Cleaner engines include non-road engines meeting Tier 4 or cleaner

DIVISION 01—GENERAL REQUIREMENTS

Section 013500—Special Procedures

standards and on-road engines meeting 2004 On-Highway Heavy Duty Engine Emissions Standards, or cleaner, whether the equipment is owned or rented. If biodiesel is used, sources of biodiesel made from recycled cleaner fuels, such as recycled oil waste from restaurants, should be used, if available. The Contractor should provide reasonable justification for not meeting the minimum requirement for cleaner fuels, if impractical. Cleaner diesel control technology includes EPA or California Air Resources Board (CARB) verified diesel particulate filters (DPFs) or diesel oxidation catalysts (DOCs).

- C. Diesel-powered equipment should be used where available and/or practicable instead of gas-powered equipment. The Contractor shall minimize idling to control air pollution and reduce fuel usage. This shall include turning off all diesel engines on construction equipment greater than 50 HP when not in active use. The Contractor should use, to the extent practicable, CARB Section 2485 Airborne Toxic Control Measures to limit diesel-fueled commercial motor vehicle idling, including use of machines with automatic idle-shutdown devices and auxiliary power systems that meet CARB equipment specifications to power cab heating and air conditioning when equipment is unengaged.
- D. The Contractor shall perform routine, on-time equipment inspections and maintenance such as oil changes and checking tire pressure to maintain proper fuel efficiency.
- E. The Contractor shall schedule activities taking into account minimizing the number of vehicle/truck trips to the site.
- F. The Contractor shall purchase and use local materials to the extent practicable.
- G. If water usage is necessary (e.g., for dust suppression), water conservation measures will be utilized where feasible and practical.
- H. Where feasible, the Contractor shall recycle all scrap construction materials, wastes from the construction office, and other materials generated during the course of construction activities.
- I. Practices such as reducing the use of paper by utilizing electronic transmittal of project documents and implementation of waste reduction and recycling programs at the work site shall be implemented. Workers will also be encouraged to minimize waste where possible (e.g., using refillable water bottles instead of single-use bottled water).

3.02 PROTECTION OF AIR – EQUIPMENT FUELING AND MAINTENANCE

- A. Ultra Low-Sulfur Diesel Fuel
 - 1. All diesel-powered off-road vehicles and equipment used on the project site for 3 consecutive days or more shall be fueled with ultra low-sulfur

DIVISION 01—GENERAL REQUIREMENTS

Section 013500—Special Procedures

diesel (ULSD). This includes, at a minimum, vehicles with engine HP ratings of 50 HP and above, and internal combustion engines used to power generators, compressors, and similar equipment. Where feasible, the Contractor shall use biodiesel fuel.

2. The ULSD fuel shall contain no more than 15 parts per million of sulfur.
3. The Contractor shall submit the following:
 - a) Prior to beginning construction, submit a list of the diesel-powered equipment that will use ULSD fuel. The list shall include:
 - 1) Equipment number, make, model, and Contractor/subcontractor name.
 - 2) Type and source of ULSD fuel to be used.
 - b) Submit monthly updates to the list of construction equipment.
 - c) Submit monthly reports of hours of operation for all diesel-powered equipment.
4. Submit copies of diesel fuel delivery slips and fuel receipts each month, noting the type of diesel fuel used with each piece of diesel-powered equipment.
5. The Owner encourages the use of other diesel emission reduction alternative fuels (e.g., biodiesel).
6. The Owner encourages retrofit emission control devices on equipment or use of EPA Tier II or Tier III equipment.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes the requirements for health and safety provisions necessary for all work at the Jorgensen Forge Outfall Site.
- B. The work also includes compliance with all laws, regulations, and ordinances with respect to safety, noise, dust, fire and police action, civil disobedience, security, and traffic.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as specified in this Section. Work related to this Section is described throughout the Specifications.

1.03 SUBMITTALS

- A. Prior to the start of any work, provide a site-specific Health and Safety Plan (HASP), which meets all the requirements of the Jorgensen Forge Corporation Health and Safety Plan as well as local, state and federal laws, rules and regulations, and the pertinent regulations listed in Divisions 00 to 35 of the Contract Documents. The HASP shall address all requirements for general health and safety and shall include but not be limited to:
 - 1. Description of the work to be performed and anticipated chemical and/or physical hazards associated with the work
 - 2. Map of the Jorgensen Forge Outfall Site illustrating the location of the anticipated hazards and areas of control for those hazards
 - 3. Hazardous material inventory and Material Safety Data Sheets (MSDSs) for all chemicals that will be brought onto the Jorgensen Forge Outfall Site
 - 4. Signage appropriate to warn work area personnel and visitors of anticipated site hazards
 - 5. Engineering controls/equipment to be used to protect against anticipated hazards, including description and limits of the exclusion zone, decontamination zone and decontamination facilities
 - 6. Personal protective equipment and clothing including head, foot, skin, eye, and respiratory protection

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

7. Work area housekeeping procedures and personal hygiene practices
 8. Personnel and equipment decontamination plan
 9. Administrative controls
 10. Emergency plan, including locations of and route to nearest hospital
 11. Record keeping, including:
 - a) Documentation of appropriate employee training
 12. Name and qualification of person preparing the HASP and person designated to implement and enforce the HASP
 13. Signatory page for work area personnel to acknowledge receipt, understanding, and agreement to comply with the HASP
- B. Prepare a Spill Prevention, Control, and Countermeasure (SPCC) Plan prior to the start of any construction activity. The Contractor can submit the site-specific HASP and SPCC Plan as one comprehensive document or can submit the plans as separate documents.

1.04 POTENTIAL PHYSICAL AND OTHER HAZARDS

- A. The work of the Contractor is described elsewhere in these Specifications. Precautions to prevent all anticipated physical and other hazards, including heavy equipment and vessels, shall be addressed in the HASP.
- B. Specific aspects of construction resulting in physical hazards anticipated for this project include but are not limited to the following:
1. Work adjacent to the Duwamish River, presenting hazards of falling overboard, hypothermia from exposure to the elements, and drowning
- C. Other anticipated physical hazards include but are not limited to the following:
1. Heat stress, such as that potentially caused by impermeable clothing (may reduce the cooling ability of the body due to evaporation reduction)
 2. Cold stress, such as that potentially caused during times of low temperatures and high winds, especially when precipitation occurs during these conditions
 3. Biological hazards, such as insect stings or bites
 4. Trips and falls

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

PART 2 – PRODUCTS

2.01 PRODUCTS SPECIFIED FOR HEALTH AND SAFETY

- A. Provide the equipment and supplies necessary to support the work as described in the site-specific HASP. Equipment and supplies may include but are not limited to:
1. Chemicals to be used on site including dust suppressants/wetting agents, cleaning degreasing, and/or welding/cutting supplies
 2. Hazardous materials inventory and MSDSs for the chemicals brought on site
 3. Fencing and barriers
 4. Warning signs and labels
 5. Fire extinguishers
 6. Equipment to support “hot” work
 7. Equipment to support “lock out”/“tag out” procedures
 8. Scaffolding and fall protection equipment
 9. Personal protective equipment (hard hats, foot gear, skin, eye, and respiratory protection)
 10. Area and personnel exposure monitoring equipment
 11. Decontamination equipment and supplies
 12. First aid equipment
 13. Release prevention equipment
 14. Field documentation logs/supplies

PART 3 – EXECUTION

3.01 WORK AREA PREPARATION

- A. Comply with health and safety rules; regulations, ordinances promulgated by the local, state, and federal government; the various construction permits, and other Sections of the Contract Documents. Such compliance shall include but not be specifically limited to:

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

1. Any and all protective devices, equipment, and clothing, including proper isolation of the exclusion zone (any area where personnel or equipment could come in contact with TSCA material), provision of a decontamination zone and decontamination facilities to permit personal decontamination for any personnel exiting the exclusion zone
 2. Guards
 3. Restraints
 4. Locks
 5. Latches
 6. Switches
 7. Other safety provisions that may be required or necessitated by state and federal safety regulations
- B. Determine the specific requirements for safety provisions and provide inspections and reports by the appropriate safety authorities to be conducted to ensure compliance with the intent of the regulations.
- C. Inform employees and subcontractors and their employees of the potential danger in working with any potentially contaminated materials, equipment, soils, and groundwater at the Jorgensen Forge Outfall Site.
- D. Perform whatever work is necessary for safety and be solely and completely responsible for conditions of the work area, including safety of all persons (including employees of the Owner, Contractor, and subcontractors) and property during the Contract period. This requirement applies continuously and is not limited to normal working hours.
- E. The Owner's review of the Contractor's performance does not include an opinion regarding the adequacy of or approval of the Contractor's safety supervisor, the site-specific HASP, safety program, or any safety measures taken in, on, or near the Jorgensen Forge Outfall Site.
- F. Accidents causing death, injuries, or damage must be reported immediately to the Owner in person or by telephone or messenger. In addition, promptly report in writing to the Owner all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the Jorgensen Forge Outfall Site, giving full details and statements of witnesses.
- G. If a claim is made by anyone against the Contractor or any subcontractor because of any accident, the Contractor shall promptly report the facts in writing within 24 hours after occurrence, to the Owner, giving full details of the claim.

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

3.02 SITE SAFETY AND HEALTH OFFICER

- A. Provide a person designated as the Site Safety and Health Officer, who is thoroughly trained in construction safety, marine construction safety, rescue procedures, and the use of all necessary safety equipment, air monitoring equipment, and gas detectors that the work requires.
- B. The Site Safety and Health Officer shall be empowered with the delegated authority to order any person or worker at the Jorgensen Forge Outfall Site to follow the safety rules. Failure to observe these rules is sufficient cause for removal of the person or worker(s) from this project.
- C. The Site Safety and Health Officer is responsible for determining the extent to which any safety equipment must be utilized, depending on conditions encountered at the Jorgensen Forge Outfall Site.

3.03 SPILL PREVENTION AND CONTROL

- A. The Contractor shall be responsible for prevention, containment, and cleanup of spilling oil, fuel and other petroleum products used in the Contractor's operations. All such prevention, containment, and cleanup costs shall be borne by the Contractor.
- B. The Contractor shall prepare a SPCC Plan prior to the start of construction activity and includes, at the minimum, the following items:
 - 1. Identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharge from the Jorgensen Forge Outfall Site
 - 2. Designation of a service area if such activities as refueling or vehicle maintenance of Contractor vehicles are to be performed at the Jorgensen Forge Outfall Site
 - 3. Description of fugitive-dust minimization practices
 - 4. Drainage diversion plans
 - 5. A list of key personnel, including phone numbers (home and office), qualified to act as the emergency coordinator
 - 6. A list of emergency equipment to be available at the Jorgensen Forge Outfall Site
- C. The Contractor is advised that discharge of oil from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

- D. The Contractor shall, at a minimum, take the following measures regarding oil spill prevention, containment, and cleanup.
1. Fuel hoses, lubrication equipment, hydraulically operated equipment, oil drums, and other equipment and facilities shall be inspected regularly for drips, leaks, or signs of damage, and shall be maintained and stored properly to prevent spills. Proper security shall be maintained to discourage vandalism.
 2. All land-based oil and products' storage tanks shall be diked, contained, and/or located to prevent spills from escaping into the water. Diking and containment area surfaces shall be lined with impervious material to prevent oil from seeping through the ground and dikes.
 3. All visible floating oils shall be immediately contained with booms, dikes or other appropriate means and removed from the water prior to discharge into state waters. All visible oils on land shall be immediately contained using dikes, straw bales or other appropriate means and removed using sand, ground clay, sawdust or other absorbent material, which shall be properly disposed of by the Contractor. Waste materials shall be temporarily stored in drums or other leak-proof containers after cleanup and during transport to disposal. Waste materials shall be disposed off site in accordance with applicable local, state, and federal regulations.
 4. In the event of any oil or product discharges into public waters, or onto land with a potential for entry into public waters, the Contractor shall immediately notify all parties required by permits and federal, state, and local regulations, and shall also immediately notify the following parties:
 - a) **Owner's Representative:** Miles Dyer (206) 965-1352, or (740) 777-7888.
 - b) **National Response Center:** 800-424-8802
 - c) **Washington Department of Ecology, Northwest Regional Office:** 425-649-7000
 - d) **Washington Emergency Management Division:** 800-258-5990
- E. The Contractor shall maintain the following materials (as a minimum) at the at the Jorgensen Forge Outfall Site:
1. Oil-absorbent booms: 10 each, 10 feet long
 2. Oil-absorbent pads or bulk material, adequate for coverage of 2,000 square feet of surface area

DIVISION 01—GENERAL REQUIREMENTS

Section 013529—Health, Safety, and Emergency Response Procedures

3. Ten straw bales
4. Oil-skimming system
5. Oil dry-all, gloves, and plastic bags

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 014126—Permits

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section describes the Contract applicable permits.
- B. This project is being conducted pursuant to the Second Modification to the 2011 U.S. Environmental Protection Agency (EPA) Administrative Order on Consent for Removal Action (AOC; Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] Docket No. 10-2011-0017). As such, this project is exempt from permitting through the local permitting agency (City of Tukwila). However, all work must still be completed in accordance substantive requirements of any permits which would be needed if this project were not exempt. The Contractor shall comply with all applicable local, state, and federal laws and regulations.
- C. The permit exemption under the AOC does not apply to electrical, mechanical, or utility permits. The Contractor is responsible for obtaining any of these permits which may be required as part of the Contractor's work.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this Section. Work related to this Section is described throughout the Specifications.

1.03 PERMITS

- A. Keep fully informed of all local ordinances, as well as state and federal laws that in any manner affect the work herein specified. At all times comply with said ordinances, laws, and regulations, and protect the Owner and its officers and agents against any claim or liability arising from or based on the violation of such laws, ordinances, or regulations. Secure and pay for all permits, licenses, and inspection fees necessary for prosecution and completion of the work unless otherwise specified.
- B. The Contractor shall comply with all conditions attached to applicable City, County, Federal, State, and local permits. These permits include the following:
 - 1. Contractor provided permits, including but not limited to:

Electrical Permit- City of Tukwila

DIVISION 01—GENERAL REQUIREMENTS

Section 014126—Permits

1.04 POSTING PERMITS

- A. Post permits at the site of the work.

1.05 INSPECTIONS

- A. Call and make any arrangements for all inspections and testing required by the permits and conditions of the permits.
- B. Post inspection reports at the Jorgensen Forge Outfall Site.

1.06 RESTORATION OF PROPERTY

- A. Comply with all property restoration requirements contained in permits and agreements to complete the work.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 014500—Quality Control

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section describes the Contractor's quality control requirements, duties, and responsibilities during execution of the work. The intent of this Section is to require the Contractor to establish a necessary level of control that will provide sufficient information to assure both the Contractor and the Engineer that the specification requirements are and have been met.
- B. The Contractor shall establish, provide, and maintain a Construction Quality Control (CQC) Plan as specified herein, detailing the methods and procedures that will be taken to assure that all materials and completed construction elements conform to Drawings, these Specifications, and other requirements. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the Contract Specifications, it is the responsibility of the Contractor to ensure that construction and CQC are accomplished in accordance with the stated purpose and these Specifications as described herein.
- C. The Contractor shall be prepared to discuss and present, at the Preconstruction Conference, his/her understanding of the CQC requirements. The Contractor shall not begin any construction the CQC Plan has been reviewed and approved by the Engineer.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as specified in this Section. Work related to this Section is described throughout these Specifications.

1.03 SUBMITTALS

- A. Submit the qualifications of the personnel identified in Paragraph 2.01 of this Section
- B. CQC Plan
- C. Daily Inspection Reports
- D. Test Reports

1.04 QUALITY ASSURANCE – CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce Work of specified quality.

DIVISION 01—GENERAL REQUIREMENTS

Section 014500—Quality Control

- B. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Perform work by persons qualified to produce required and specified quality.
- D. Verify that field measurements are as indicated on shop drawings. Ensure familiarity with pertinent codes and standards. In procuring all items used in this work, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this work meet or exceed the specified requirements.
- E. The Owner reserves the right to reject items incorporated into the work which fail to meet the specified minimum requirements. The Owner further reserves the right, and without prejudice to other recourse the Owner may take, to accept non-complying items subject to an adjustment in the Awarded Contract Price as approved by the Owner.

1.05 REFERENCES AND STANDARDS

- A. Products or workmanship specified by association, trade, or other consensus standards shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. Neither the contractual relationships, duties, nor responsibilities of the parties in the Contract, nor those of the Owner, shall be altered from the Contract Documents by mention or inference otherwise in any reference document.
- E. All pertinent laws, ordinances, rules, regulations and codes shall govern construction activities at the Jorgensen Forge Outfall Site.
- F. Construction which is not governed by governmental regulations or the Contract Specifications will be governed by the more stringent provisions of the latest published edition or statute adopted edition, at the time of Contract signing, following applicable codes and standards:
 - 1. Uniform Building Code
 - 2. National Electrical Code
 - 3. Uniform Plumbing Code

DIVISION 01—GENERAL REQUIREMENTS

Section 014500—Quality Control

4. Uniform Fire Code

1.06 PERMITS

- A. Refer to Section 014126 – Permits for permit requirements.

PART 2 – PRODUCTS

2.01 CONTRACTOR PERSONNEL REQUIREMENTS

- A. All contractor personnel shall be trained, experienced, and qualified to perform the tasks assigned to them.

PART 3 – EXECUTION

3.01 CONSTRUCTION QUALITY CONTROL (CQC) PLAN

- A. Submit a CQC Plan to the Owner as a Preconstruction Submittal. The CQC Plan will be reviewed by the Owner and must be approved before any work can start. The CQC Plan will be used to document inspections, monitoring, surveys, and other actions to be taken by the Contractor to ensure that the work complies with all Contract requirements.
- B. The CQC Plan shall identify personnel, procedures, methods, instructions, records, and forms to be used to control the work and verify that the work conforms to the Contract Documents.
- C. The CQC Plan shall include a description of the method for ensuring that SSP installation and removal/stockpiling are within specified limits of work; if the use of electronic positioning equipment is intended, the CQC Plan will include the equipment manufacturer, equipment make and model, and equipment operating frequency.

3.02 DOCUMENTATION

- A. Specific Contractor quality control records required for the contract shall include, but are not necessarily limited to, the following records:
 - 1. Quality Control Records are those documents that have been reviewed and accepted by the Contractor as complete, correct and legible. Quality Control Records shall include the documents such as:
 - a) Drawings, specifications, procedures used for construction, procurement documents, inspections and test records;
 - b) Submittals;

DIVISION 01—GENERAL REQUIREMENTS

Section 014500—Quality Control

- c) Personnel and procedure qualification records;
- d) Material, chemical, and physical property test results;
- e) Certificates of Compliance, and shipment releases;
- f) Non-compliance reports and corrective action.

All Quality Control records shall be identified in the CQC Plan and maintained in the Contractor's site files. The Engineer shall be provided access to these files when requested. Upon the completion of the Contractor's contractual activities, these files shall be turned over to the Engineer.

2. Daily CQC Report: Prepare and maintain a daily CQC report of operations. The daily CQC report shall be attached to the Contractor's Daily Construction Report, submitted in accordance with Section 013300 – Submittals. At a minimum, information in this daily CQC report will include the following items:
 - a) Date
 - b) Weather conditions
 - c) Period covered by the report
 - d) Equipment used
 - e) Staff on site
 - f) Description of activity as identified by work area
 - g) Quantity(s) of material(s) used/installed/removed that day and to date
 - h) Downtime and delays to the operation
 - i) Health and safety status
 - j) Other relevant comments concerning conduct of the operation
3. The Daily CQC Report shall include the results of all inspections, surveys, and monitoring activities and shall be signed by the Contractor's Superintendent or CQC Supervisor.

DIVISION 01—GENERAL REQUIREMENTS

Section 014500—Quality Control

B. Document Control

The Contractor's CQC Plan must require that Contractor-generated documents pertaining to quality related items be controlled. The following types of documents shall be on controlled distribution to ensure that changes to them are transmitted and received when applicable:

1. Manuals
2. Instructions
3. Procedures
4. Specifications
5. Drawings
6. Inspection and test plans
7. Field change requests

3.03 CORRECTIVE ACTION REQUIREMENTS

The CQC Plan shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control.

3.04 OVERSIGHT BY THE ENGINEER

- A. All items of material and equipment shall be subject to oversight by the Engineer at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable technical Specifications and Drawings. In addition, all items of materials, equipment and work in place shall be subject to surveillance by the Engineer at the site for the same purpose.
- B. To facilitate oversight by the Engineer, the Contractor shall allow the Engineer access to the job site at the request of the Owner while the work is being performed.
- C. Oversight by the Engineer does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.

DIVISION 01—GENERAL REQUIREMENTS

Section 014500—Quality Control

3.05 NON-COMPLIANCE

The Engineer will notify the Contractor of any non-compliance with any of the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Engineer or his/her authorized representative to the Contractor or his/her authorized representative at the site of the work, shall be considered sufficient notice.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS
Section 015000—Temporary Facilities and Controls

PART 1 – GENERAL

1.01 SUMMARY

- A. The work includes the requirements to provide temporary facilities required by both the Contractor and the Owner until final completion of the work. The work also includes compliance with all controls or ordinances with respect to safety, noise, dust, security, or traffic.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this Section. Work related to this Section is described throughout these Specifications.

1.03 REFERENCES

- A. The rules, requirements, and regulations that apply to this work include, but are not necessarily limited to the following:
 - 1. Ecology, "Stormwater Management Manual for Western Washington," 2012

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

3.01 UTILITIES

- A. Provide adequate facilities for Contractor's operation at Contractor's expense, including:
 - 1. Water
 - a) Fresh drinking water for employees shall be provided near sanitary containers by the Contractor.
 - 2. Construction Electricity
 - a) Make all arrangements for the furnishing of electric power for construction purposes. Existing power sources located on the Jorgensen Forge property may be available for use as a temporary power source. The Contractor shall be responsible for identifying and hooking up potential power sources and all costs associated

DIVISION 01—GENERAL REQUIREMENTS

Section 015000—Temporary Facilities and Controls

with connecting to the power source. The Owner will pay the electrical utility rate fees associated with the Contractor's use of power.

3. Toilet Room Facilities

- a) Install and maintain necessary temporary sanitary toilet facilities with hand washing facilities during the term of the Contract. All toilet facilities shall be regularly maintained in a sanitary condition. Toilets shall be of a chemical type; removed at completion of work and the premises disinfected.

4. Communications

- a) Install and maintain the appropriate equipment to allow for the efficient communication via voice and the Internet with the Owner and with outside parties at all times during the term of this contract. Remove at completion of work. All accounts shall be registered in the name of the Contractor.

5. Contractor Field Office

- a) Install and maintain necessary field office space during the work. The location of the Contractor's field office shall be approved by the Owner and Engineer. Remove at the completion of the work.
- b) Contractor's field office can be combined with Owner's field office provided there is adequate separation.

6. Owner's Field Office

- a) Provide a secure field office suitable for use by the Owner's staff. The Owner's field office shall be plumb and level, a minimum of 80 square feet in size. The location of the Owner's field office shall be approved by the Owner and Engineer.
- b) The field office shall be complete with one 5-foot office desk with three drawers, two office-type chairs, power, light, ventilation, air conditioning, fire extinguisher, first aid kit, and heat. The Contractor shall also provide three sets of keys.
- c) Sanitary facilities and hand washing facilities shall be located nearby.

3.02 SITE MAINTENANCE

A. Cleanup

DIVISION 01—GENERAL REQUIREMENTS

Section 015000—Temporary Facilities and Controls

1. Keep the Jorgensen Forge Outfall Site, staging areas, and Contractor's facilities clean and free from dirt, dust, rubbish and debris at all times. Materials and equipment shall be removed from the site when they are no longer necessary. Before final completion of the work, the Jorgensen Forge Outfall Site shall be cleared of equipment, unused materials, and dirt, dust and rubbish to present a clean and neat appearance. Disturbed areas shall be restored per the Owner's direction.
2. Waste material of any kind shall not be permitted to remain on the Jorgensen Forge Outfall Site or on adjacent streets. Immediately upon collection of such materials, they shall be carried off the site and disposed of properly by the Contractor.
3. Keep all work areas clear of all refuse, rubbish, and debris that may accumulate from any source and keep them in a neat condition to the satisfaction of the Owner. Control any rodent problems that develop during the course of the work through the use of professional pest control services.
4. In the event that waste material, refuse, debris, or rubbish is not so removed from the Jorgensen Forge Outfall Site by the Contractor, the Owner reserves the right to have such material removed and the expense of the removal and disposal charged to the Contractor.
5. Paints, solvents, and other materials shall be handled with care to prevent entry of contaminants into storm drains, surface waters, or soils. These materials shall be collected and properly disposed of by the Contractor.

B. Silt Fence

1. Per 1.03.A, Contractor shall furnish, install and maintain silt fencing located along the shoreline work area from the time of mobilization thru demobilization.

C. Public Street and On-site Roadway Cleaning

1. The Contractor shall be responsible for preventing dirt and dust escaping from trucks and other vehicles operating on or departing the project site by sweeping, covering dusty loads, washing truck tires and all other reasonable methods.
2. When trucks and other equipment are operating on paved public streets and site roadways/paved surfaces, the Contractor will be required to clean said streets, roadways and other paved surfaces at least daily, and at other times if required by the Owner.

DIVISION 01—GENERAL REQUIREMENTS
Section 015000—Temporary Facilities and Controls

3. In the event that these requirements are violated and no action is taken by the Contractor after notification of infraction by the Owner, the Owner reserves the right to have the streets, roadways, and other paved surfaces in question cleaned by others and the expense of the operation charged to the Contractor.

3.03 AIR POLLUTION CONTROL

- A. The Contractor shall only fuel construction equipment dedicated to the project with Ultra Low Sulfur Diesel (ULSD) having a sulfur content of 15 parts per million weight (ppmw) or less. "Dedicated" means anticipated to be used in the work for more than 40 hours. For other equipment used in the work, the use of ULSD is encouraged.
- B. Do not discharge smoke, dust, and other contaminants into the atmosphere that violate local, state or federal regulations, or Owner-specific requirements. Internal combustion engines shall not be allowed to idle for prolonged periods of time. The Contractor shall maintain construction vehicles and equipment in good repair. Exhaust emissions that are determined to be excessive by the Owner shall be repaired or the equipment replaced.
- C. Minimize nuisance dust by cleaning, sweeping, vacuum sweeping, sprinkling with water, or other means. The use of water, in amounts which result in mud on public streets or runoff to on-site or off-site storm drain catchments, is not acceptable as a substitute for sweeping or other methods. Equipment for this operation shall be on the Jorgensen Forge Outfall Site or available at all times.
- D. Minimize dust and waste generated by thoroughly cleaning specified structures prior to demolition. The Contractor may utilize vacuuming, water washing, or a combination of methods to achieve this dust and waste control. Use of compressed air is not permitted for cleaning purposes. All wash water, dust and/or waste residuals shall be collected and properly managed by the Contractor. Under no circumstances shall wash water be directly introduced to the storm drain system. Dust control by water misting during demolition may also be utilized for dust control, either on buildings that have been pre-cleaned or on buildings which are not specified for pre-cleaning. As previously noted, water from misting operations shall not be allowed to discharge into the storm drain system.
- E. Provide all necessary compliance related activities, permits, and licenses associated with the use of an on-site crusher. All such applications and intended activities are subject to the Owner's review and approval.

3.04 NOISE CONTROL

- A. Construction involving noisy operations, including starting and warming up of equipment shall be in compliance with local noise ordinances.

DIVISION 01—GENERAL REQUIREMENTS

Section 015000—Temporary Facilities and Controls

- B. Comply with all local controls and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the Contract.
- C. Each internal combustion engine, used for any purpose on the Jorgensen Forge Outfall Site or related to the work, shall be enclosed and be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the Jorgensen Forge Outfall Site without said muffler and enclosure.

3.05 USE AND OCCUPANCY

- A. The Contractor will be allowed space for the storage of materials, equipment, and employee parking. Employee parking will be confined to the Contractor's work and staging and stockpiling areas. No on-street equipment or employee parking is allowed.
- B. The Contractor may make arrangements with private property owners as desired to secure additional space for material storage, employee parking, etc. All space must be within local land use and permitting requirements at the Contractor's expense. The Contractor must provide the Owner a copy of the release from the private property owner that all obligations of the property use arrangement have been met before final payment to the Contractor is issued.
- C. The Jorgensen Forge Outfall Site shall be closed to the public at all times. The Contractor shall abide by special request of security personnel, and local police and fire departments.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS
Section 017000—Execution and Closeout Requirements

PART 1 – GENERAL

1.01 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this Section. Work related to this Section is described throughout the Specifications.

1.02 TIMING

- A. Prior to requesting final inspection, the Contractor shall assure itself that the work is complete in all aspects.

PART 2 – PRODUCTS

2.01 WARRANTY

- A. The Contractor warrants the labor, materials, and equipment delivered under the Contract to be free from defects in design, material, or workmanship, and against damage caused prior to final inspection. Unless otherwise specified, this warranty extends for a period of 1 year from the date of Substantial Completion.

PART 3 – EXECUTION

3.01 FINAL DOCUMENTS

- A. Project As-Built Drawings
 - 1. Project As-Built Drawings shall be compiled by the Contractor and submitted to the Owner for translation to the Record Drawings on a monthly basis.
 - 2. Submit the Project As-Built Drawings on paper full-sized (ANSI D) copy.
 - 3. Drawings shall be kept current and shall be updated at the time the material and equipment is installed. Annotations to the record documents shall be made with an erasable colored pencil conforming to the following color code:
 - a) Additions – Red
 - b) Deletions – Green
 - c) Comments – Blue
 - d) Dimensions – Graphite

DIVISION 01—GENERAL REQUIREMENTS

Section 017000—Execution and Closeout Requirements

4. Project As-Built Drawings must be complete and accepted by the Owner before Final Completion is issued.
5. As-Built Drawings shall be in accordance with horizontal and vertical control as shown on the Drawings.

3.02 CLEAN-UP

- A. Final clean-up, and clean-up during the course of the work, is defined in the Standard Specifications. Those paragraphs are supplemented to provide the following:
 1. General: Prior to completion of the work, remove from the Jorgensen Forge Outfall Site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described below.
 2. Site: Conduct a final sweeping of the paved site areas and traffic routes using a high efficiency vacuum sweeper.
- B. Timing: Schedule final cleaning as approved by the Owner to enable the Owner to occupy a completely clean project.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS
Section 017419—Waste Management And Disposal

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes the requirements for the disposal or recycling of wastes generated by the construction activities.
- B. Disposal work shall include furnishing all labor, tools, equipment, and incidentals required for temporary storage, transport and recycling or disposal of site materials and debris, including water and solids generated during decontamination activities, to an off-site disposal or recycling facility.
- C. Disposal work also includes all transportation and disposal fees.
- D. The waste disposal or recycling facility shall be approved by the Owner and Engineer. The Contractor will verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate.

1.02 RELATED WORK DESCRIBED ELSEWHERE

Work related to this Section is described in:

Section 011000 – Summary

Section 013529 – Health, Safety, and Emergency Response Procedures

Section 027100 – Water Management and Treatment

Section 312300 – Excavation and Stockpiling

1.03 GENERAL REQUIREMENTS

- A. All wastes generated during the course of the project shall be disposed of in accordance with all applicable local, state, and federal regulations. All disposal of waste shall be conducted in compliance with the CERCLA Off-Site Policy (40 CFR 300.440, Procedures for Planning and Implementing Off-Site Response Actions).
- B. The Contractor shall be responsible for waste characterization activities as required by the selected disposal facility and applicable local, state, and federal regulations.
- C. Effective June 1, 1991 and in accordance with SMC 21.36 as amended by Ordinance 115589, no Waste generated within the City of Seattle shall be deposited in a Waste disposal facility owned and operated by King County.

DIVISION 01—GENERAL REQUIREMENTS

Section 017419—Waste Management And Disposal

- D. The U.S. Environmental Protection Agency (EPA) has developed the off-site disposal rule to avoid having wastes from CERCLA actions contribute to present or future environmental problems. This is accomplished by directing CERCLA wastes to management units determined to be environmentally sound. The EPA must make an affirmative determination that a receiving facility (for any waste that leaves the site) is in compliance and releases are controlled before a facility may receive CERCLA wastes. The EPA must approve the receiving disposal facility in advance of any waste stream leaving the property. The offsite rule acceptability status is dynamic in nature and subject to change. EPA Region 10 has instituted a standard operating procedure where they conduct a verification of continued acceptability on the facilities that have been previously found acceptable under the offsite rule. The purpose of a verification of continued acceptability is to provide a periodic check to assure that the facility continues to be acceptable. A verification of continued acceptance is conducted when a request for the offsite rule acceptance is received and the previous verification of continued acceptance has been conducted more than 60 days prior. A verification of continued acceptance is valid for 60 days.

1.04 REFERENCES

- A. The publications listed below form a part of this Specification to the extent referenced. The publications are referred to in the text by basic designation only. The most recent version of the reference applies.

CODE OF FEDERAL REGULATIONS (CFR)

40 CFR 107	Hazardous Materials Program Procedures
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR 173	Shippers - General Requirements for Shipments and Packaging
49 CFR 178	Specifications for Packaging
40 CFR 268	Land Disposal Restrictions
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 302	Designation, Reportable Quantities, and Notification

WASHINGTON ADMINISTRATIVE CODE (WAC)

WAC 173-303	Washington Dangerous Waste Regulations
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DIVISION 01—GENERAL REQUIREMENTS

Section 017419—Waste Management And Disposal

WAC 173-304 Minimum Functional Criteria for Solid Waste

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 SITE MAINTENANCE

- A. Keep work area, site, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris resulting from Contractor's operations.
- B. Provide on-site containers for collection of waste materials, debris, and rubbish. Periodically remove waste from the site.
- C. Dispose of trash and debris in compliance with governing codes, ordinances, regulations, and anti-pollution laws.
- D. Locate dumpster(s) or other waste containers or stockpiles inside the staging area or at a location designated by the Engineer.
- E. Contain all water/solids from decontamination inside the staging area or at a location designated by the Engineer.
- F. Control all operations in accordance with Section 015000 – Temporary Facilities and Controls.

END OF SECTION

DIVISION 01—GENERAL REQUIREMENTS

Section 017423—Decontamination

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Decontaminate equipment and reusable materials in accordance with applicable local, state, and federal regulations prior to departure from the work areas.
- B. Decontaminate equipment before being used to handle or transport clean materials.
- C. Decontamination will be conducted to minimize environmental impacts.

1.02 RELATED WORK DESCRIBED ELSEWHERE

Work related to this Section is described in:

- A. Section 311000 – Site Clearing
- B. Section 017419 – Waste Management and Disposal

1.03 SUBMITTALS

A. Pre-Construction

- 1. Provide documentation to the Engineer that equipment being mobilized to the project site has been properly decontaminated.
- 2. Prepare a Decontamination Plan for Engineer review that provides additional details on decontamination procedures, decontamination areas, and the management of decontamination wastes.

B. During and After Construction

- 1. Document the decontamination of equipment in accordance with this Section and submit documentation to the Engineer for review prior to demobilization of any equipment that may have contacted contaminated materials.

1.04 DEFINITIONS

- A. Equipment means equipment used by the Contractor that may have come in contact with sediment or soil (TSCA and/or non-TSCA) during performance of the work, including, but not limited to, surfaces of vessels (including barges) above the waterline, appurtenances, tools, and vehicles. Equipment does not include containers used for the off-site transport of wastes.

DIVISION 01—GENERAL REQUIREMENTS

Section 017423—Decontamination

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

- A. Decontaminate equipment and reusable materials prior to departure from the work areas, prior to relocation within the work areas, and prior to handling clean materials.
- B. Decontaminate equipment and reusable materials by removing visible solids and then high-pressure washing and/or steam cleaning. Surfactants and detergents may be used as reviewed by the Engineer.
- C. Do not use surfactants or other detergents or chemicals to decontaminate equipment in the waterway. Equipment decontamination that must be performed in-water will be conducted using high-pressure washing or an alternate method reviewed by the Engineer.
- D. Each piece of equipment or material must be inspected by the Contractor prior to departure from the work areas to verify that decontamination has been conducted. Provide documentation of decontamination to the Engineer in accordance with this Section. Do not demobilize or remove equipment from the work areas without Engineer review.
- E. Contain decontamination water, solids, and other materials generated during equipment decontamination, and do not allow these materials to be released to the river or to contact native materials. Decontamination water and solids will be collected for off-site treatment and disposal as described in Section 017419.
- F. Personnel engaged in decontamination activities will use personal protective equipment (PPE), as appropriate, and in accordance with the Construction Health and Safety Plan. Contaminated PPE will be bagged, placed in a designated container, and managed accordingly.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
Section 017600 – Protecting Installed Construction

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Procedures for protecting installed construction including existing utilities such as (but not limited to) cables, sewer lines, water lines, and private water intakes.
- B. Coordination with public utilities and private companies that have any aboveground, belowground, or underwater electric, gas, or other utility lines within the work areas. Locate cables and/or lines and take any necessary precautions to prevent damages to these lines.
- C. Protection of any other existing structures including, but not limited to, Boeing's sheet pile wall.
- D. Protection of SSP installed as part of this Contract, but before project completion.

1.02 SUBMITTALS

- A. Prior to mobilization, submit a Protection Plan that will include:
 - 1. Utility Plan
 - a. Proof of three lines of evidence for each utility on site, including the private water collection and treatment system.
 - b. Adapted construction procedures for working within 6 feet (ft) of utilities.
 - c. Explicit protocol to be followed if utilities are damaged. This will include a list of phone numbers and persons to be contacted, including the Owner and Engineer.
 - d. Explicit permission for any employee to stop Work if they feel that the Work has become unsafe due to proximity or damage to a utility.
 - 2. Existing Structure Plan
 - a. Work necessary to protect existing (or newly installed) structures during execution of the project.

PART 2 – PRODUCTS

Not used.

DIVISION 01 – GENERAL REQUIREMENTS
Section 017600 – Protecting Installed Construction

PART 3 - EXECUTION

3.1 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide protection to maintain existing conditions (prior to construction) so that the installed Work is without damage or deterioration at the time of completion and meets or exceeds the condition prior to construction.
- B. Use equipment and procedures that prevent damage to the sheet pile walls once installed.
- C. The Contractor will, at his own cost and expense, sustain in their places and permanently protect from direct or indirect injury any and all utilities, structures, and property in the vicinity of the Work, whether over or underground, or those that appear within the footprint of construction. The Contractor will repair any damages at no cost to Owner or Engineer.
- D. The Contractor will protect existing structures from damage, and will repair and restore to the satisfaction of the Engineer any and all existing facilities, structures, equipment, surfaces, finishes, or other features that may become damaged or disturbed as a result of the Work or the activity of the Contractor's personnel. The Contractor will not load or permit any part of any existing structure to be loaded in any manner not intended as part of the design, or that will endanger the structure, nor will the Contractor subject any part of adjacent properties to stresses or pressures that will endanger them.

3.2 UTILITIES

- A. Location of utilities must be ascertained by the Contractor and any damage caused to these utilities due to the Work will be the sole responsibility of the Contractor. Contact representatives of the respective public utilities and private companies and request that they physically mark the locations of any and all lines in the work area, at least 5 days prior to commencing work within 100 ft of that area. The Contractor will contact Utility Notification Center at 1.800.424.5555, at least 5 working days prior to beginning excavations.
- B. The Contractor must notify the Engineer if a utility-related object is discovered during installation operations that was not identified previously.
- C. If damage is caused to a utility(ies), immediately notify both the utility company and Engineer and coordinate the repair of the utility(ies) with the appropriate utility company(ies). Repairs will occur in coordination with the utility company(ies), at the Contractor's expense. The Engineer may stop all Work on the project until the repairs are acceptable to the Engineer.

END OF SECTION

DIVISION 02 – EXISTING CONDITIONS

Section 022100 – Surveys

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. The Contractor will provide equipment, materials, labor, and services required to complete the following:
 - 1. Perform optical survey monitoring during SSP installation.
 - 2. Confirm that the Work is performed according to the Specifications.
 - 3. Conduct a post-construction survey of the installed SSP wall.
- B. Owner will provide a pre-construction survey of the upland and shoreline work areas and other features that may be affected by the Work. Survey benchmarks will be established for use by the Contractor.
- C. The Contractor will provide police details and traffic control measures where necessary to complete the Work presented in this Section.
- D. The Contractor will stake the limits of the Work, the utility easements, and limited-use areas. Points will be marked at locations reviewed by the Engineer.

1.02 RELATED WORK DESCRIBED ELSEWHERE

Work related to this Section is described in:

Section 011400 – Work Restrictions

1.03 SUBMITTALS

- A. Survey Crew Qualifications
 - 1. Prior to the start of any survey work, the Contractor will submit to the Engineer for review the name, address, telephone number, and qualifications of the surveyor, crew chief, superintendent, and any other persons who will perform surveys or survey-related duties.
 - 2. The Contractor will only use surveyors registered and licensed in Washington and will provide proof of licensure prior to the start of survey work.
- B. Records

DIVISION 02 – EXISTING CONDITIONS

Section 022100 – Surveys

1. Field Notes, Computations, and Survey Quantities

- a) The Contractor will furnish the Engineer with copies of all field notes, computations, and records relating to the quantity survey or to the layout of the Work.
- b) The Contractor will submit copies of all field notes, computations, and records related to settlement monitoring no later than the end of the workday following a monitoring event.
- c) Survey data will be provided in x, y, z (easting, northing, elevation) format. Each data file will include a descriptive header including, but not limited to: software and equipment information, Property Owner, project, horizontal and vertical datum, units, survey type, alignment, and stations surveyed.
- d) The Contractor will maintain at the work areas a complete, accurate log of survey work as it progresses.

1.04 QUALITY ASSURANCE

- A. The Contractor will have a minimum of 5 years of experience completing the Work specified herein.
- B. Survey, layout, and related work will be performed and signed by a surveyor registered in Washington. The surveyor will have actively engaged in topographic survey operations as a licensed surveyor throughout the past 3 years.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Contractor will exercise care during execution of the Work to reduce disturbance to existing property and to the landscape and waters surrounding the work areas. Survey crews will not traverse into uncontrolled areas, controlled areas, or private property without approval. The Contractor will coordinate with the Engineer well in advance of the Work to confirm the Contractor's intent to coordinate access. The Contractor will obtain right of entry permits, as required, to survey public or private property at no additional cost to Owner. The Contractor

DIVISION 02 – EXISTING CONDITIONS

Section 022100 – Surveys

will comply with restrictions associated with the Work in Section 011400 – Work Restrictions.

3.02 OPTICAL SURVEY

- A. The Contractor will perform optical survey monitoring during the construction period and provide final confirmation of corner control points at conclusion of construction.

3.03 SURVEY REFERENCE POINTS

- A. The Contractor will survey control points and report data as specified in this Section.
- B. The Contractor will use the survey control points, established by the Owner, reviewed by the Engineer, and referenced to geodetic monument for the controlling horizontal and vertical survey measurements for earthwork and any additional work activities specified in the Technical Drawings and Specifications.
- C. The Contractor will protect survey control points prior to starting Work and preserve permanent reference points during construction. The Contractor will not relocate survey control points without prior written notification from the Engineer.
- D. The Contractor will promptly report to the Engineer the loss, damage, or destruction of any survey control point or relocation required because of changes in grades or for other reasons. The Contractor will replace dislocated survey control points based on original survey control at no additional cost to Owner. Replacement of dislocated survey control points will be done by a Licensed Land Surveyor.

3.04 INSPECTION

- A. The Contractor will verify locations of survey control points prior to starting the Work. The Contractor will promptly notify the Engineer of any discrepancies discovered. The Contractor will verify layouts periodically during construction.

3.05 SURVEY REQUIREMENTS

- A. General
 - 1. The Contractor will reference survey points to the survey control points and will record locations of the survey control points, with horizontal and vertical data, on project record documents.
- B. Survey Record

DIVISION 02 – EXISTING CONDITIONS

Section 022100 – Surveys

1. The Contractor will furnish the Engineer with record documents, including originals of field notes, computations, records relating to the layout of the Work, and a PC-compatible version of any computer software required to interpret the finished data and records. The Contractor is responsible for converting data and Drawing files to a standard software version reviewed by the Engineer. Standard American Standard Code for Information Interchange (ASCII) format is pre-approved for data files. The Engineer will use the data and record documents as necessary to verify completion of the project prior to final project closeout. The Contractor will retain copies of such material furnished to the Engineer.

END OF SECTION

DIVISION 02—EXISTING CONDITIONS

Section 027100—Water Management and Treatment

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section describes on-site collection of water during decontamination activities.
- B. The Contractor shall collect water from decontamination activities continuously throughout the project.
- C. The Contractor is responsible for handling, treatment and disposal of all decontamination water collected during the construction project.
- D. The Contractor shall transport the water offsite for treatment and disposal.
- E. The offsite treatment and disposal facility will be recommended by the Contractor and approved by the Owner and Engineer.
- F. The Contractor will be responsible for ensuring that all water containers are in good condition upon arrival at the site (i.e., clean, no damage).
- G. Monitoring and tracking of the offsite transport, treatment and disposal of the water will be conducted by the Contractor.

1.02 WATER MANAGEMENT AND TREATMENT PLAN

- A. The Water Management and Treatment Plan (WMTP) shall provide sufficient detail to ensure that there shall be no discharge of decontamination water at the site. The plan will also provide detail that handling and disposal at the offsite location complies with all local, state and federal requirements as well as any site specific permit requirements at that location.
- B. The WMTP shall include the following sections:
 - 1. Planned location for treatment and disposal of the water managed under this section
 - 2. Transportation plan for decontamination water

1.03 PROJECT DESCRIPTION

- A. Decontamination water shall be collected and disposed of off-site.
- B. The Contractor shall collect and properly dispose of any light non-aqueous phase liquid (LNAPL), sediment/sludge produced during the decontamination activities.

DIVISION 02—EXISTING CONDITIONS

Section 027100—Water Management and Treatment

- C. The Contractor shall arrange water collection components and provide means to contain any spills or overflows from the storage container within the Site and to keep contaminated water from infiltrating into the surrounding soils.
- D. All water storage equipment shall remain the property of the Contractor and shall be removed from the Site at the completion of the work.

1.04 PERFORMANCE REQUIREMENTS

- A. Approvals: The Contractor shall provide documentation that offsite treatment and disposal meets all local, state and federal requirements.

1.05 SUBMITTALS

- A. All submittals shall be completed in accordance with Section 013300—Submittal Procedures.
- B. The Contractor shall submit a WMTP and shall include at a minimum:
 - 1. The WMTP shall include the procedure outlines for management of water collected during decontamination activities. The Plan shall also have a section on safety including applicable Material Safety Data Sheet (MSDS), safety equipment, and required personal protective equipment.
 - 2. The Contractor shall submit an installation layout drawing for the containment for the decontamination water.
 - 3. Review of the WMTP by the Engineer does not relieve the Contractor of responsibility to perform the work in accordance with these Specifications. Contractor shall follow the WMTP so as not to deviate from the approved plan or permit constituent concentration exceedances.

1.06 SEQUENCING AND SCHEDULING

- A. The Contractor is responsible for all fines and penalties associated with nonconformance of the water in meeting discharge requirements.
- B. The Contractor shall conduct water storage activities in conjunction and coordination with all other Site activities.
- C. Contractor shall conduct water storage such that other work is not delayed due to insufficient capacity.

DIVISION 02—EXISTING CONDITIONS

Section 027100—Water Management and Treatment

PART 2 – PRODUCTS

2.01 OTHER TREATMENT SYSTEM REQUIREMENTS

- A. The Contractor is solely responsible for the water management.
- B. The Contractor shall choose the type and size of equipment and components needed to accomplish the functions designated.

2.02 DISPOSAL OF OTHER RESIDUALS

- A. Contractor shall clean out and manage oil and sediment/sludge produced during water collection and management for disposal ensuring that they meet all transportation laws and regulations and the receiving landfill requirements.

PART 3 – EXECUTION

3.01 WATER TREATMENT – GENERAL

- A. The Contractor shall furnish all labor, materials, power, and equipment and perform all operations required to design, furnish, install, test, operate, and maintain the water management equipment including: storage tanks, pumps, process equipment, water meters, process controls, operator alarms, dikes, sandbags, electric power supply and distribution.
- B. Protection of off-site facilities and designated on-site facilities, during water management work shall be solely the Contractor's responsibility.
- C. In as much as possible, water management equipment should be located in a permanent location for the entire duration of the project.
- D. The Contractor shall provide all necessary safety equipment and personal protective equipment for safe handling of decontamination water.

3.02 SAMPLING AND CHEMICAL ANALYSIS

- A. Sampling and laboratory analysis of water for offsite disposal will be performed by the Contractor as necessary to ensure that the disposal meets all applicable local, state and federal requirements, as well as any site specific permit requirements at the disposal facility.

3.03 INSPECTION AND MAINTENANCE

- A. The Contractor shall inspect and repair or replace damaged components of the water management system weekly or more frequently as directed by the Engineer.

DIVISION 02—EXISTING CONDITIONS

Section 027100—Water Management and Treatment

- B. Damage to the water management system caused by construction operations, weather, or negligence shall be repaired immediately by the Contractor at the Contractor's sole cost.

END OF SECTION

DIVISION 31—EARTHWORK
Section 311000—Site Clearing

PART 1 – GENERAL

1.01 SUMMARY

The work described in this Section includes, but is not limited to, site clearing, removal of trees and brush, grubbing, stripping, and removal of other miscellaneous items needed to complete construction of the project.

1.02 RELATED WORK DESCRIBED ELSEWHERE

Work related to this Section is described in:

Section 017423 – Decontamination

Section 312300 – Excavation and Stockpiling

1.03 EXISTING CONDITIONS

- A. By submitting a bid, the Contractor represents that they have visited the Jorgensen Forge Outfall Site to become familiar with the quantity and character of all materials to be cleared, and agrees that the premises were made available prior to the deadline for submission of bids for whatever inspection and tests the Contractor deemed appropriate.
- B. It is the responsibility of the Contractor to determine the location of all existing utilities adequately to avoid damage to utilities prior to initiating work related to this section. See Section 01 76 00 Protecting Installed Construction for additional requirements.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

3.01 CLEARING

- A. Mark clearing units for approval by the Owner prior to commencing clearing.
- B. Preserve and provide protection for:
 - 1. Adjacent facilities: Exercise extreme care to prevent damage to adjacent facilities that are to remain.
 - 2. Survey Control Points: Carefully maintain benchmarks, monuments, and other reference points. If disturbed or destroyed, replace as directed.

DIVISION 31—EARTHWORK

Section 311000—Site Clearing

- C. It is the Contractor's responsibility to visit the Jorgensen Forge Outfall Site prior to bidding to generally ascertain vegetation to be removed for construction.
- D. Clear rights-of-way to be occupied by permanent construction and required for access to the work. However, remove vegetation only as required; do not do an initial general clearing and grubbing of the Jorgensen Forge Outfall Site that leaves areas exposed that will not have immediate follow-up construction.
- E. Adhere to City of Seattle seasonal restrictions for land clearing.

3.02 GRUBBING

- A. Remove stumps, roots, and vegetation to a minimum of 12 inches below final excavation lines and grades or until organic matter is removed.
- B. Perform clearing and grubbing in advance of any grading work.

3.03 DISPOSAL OF CLEARED MATERIAL

- A. Remove and legally dispose of all cleared material at an approved off-site location. The Contractor, in a manner consistent with all government regulations, shall dispose of the refuse resulting from clearing and grubbing. In no case shall refuse material be left on the Jorgensen Forge Outfall Site, or be buried in embankments or trenches on the Jorgensen Forge Outfall Site unless directed otherwise by the Owner.

END OF SECTION

DIVISION 31—EARTHWORK

Section 312300—Excavation and Stockpiling

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This section includes the excavation, handling and stockpiling of shoreline riprap material and debris as necessary to support SSP installation.

1.02 RELATED WORK DESCRIBED ELSEWHERE

Work related to this Section is described in:

Section 013529 – Health, Safety, and Emergency Response Procedures

Section 013500 – Special Procedures

Section 014500 – Quality Control

Section 017423 – Decontamination

1.03 CONTRACTOR RESPONSIBILITY

- A. Furnish all labor, equipment, supplies, and materials necessary to perform the work under this Section.

1.04 SUBMITTALS

- A. The number, types, and capacity of equipment to be used.
- B. The methods, procedures, and controls to protect existing facilities (including but not limited to the Boeing sheetpile wall) against damage.
- C. Describe the quality control methods and procedures to ensure compliance with the Specifications.

PART 2 – PRODUCTS

- A. Provide all necessary equipment and materials to accomplish the work in this Section, including the excavation, handling, and stockpiling of riprap and debris as necessary to support SSP installation.

PART 3 – EXECUTION

3.01 GENERAL

- A. Conduct all required activities associated with excavation and handling of riprap material and debris as necessary to support SSP installation.

DIVISION 31—EARTHWORK

Section 312300—Excavation and Stockpiling

- B. Clearing and grubbing shall be completed in accordance with Section 311100 – Site Clearing.
- C. Contractor operations will require work in a potentially hazardous environment. Ensure adequate protection for all personnel, comply with all health and safety requirements of the Contractor's site-specific health and safety plan, and perform construction equipment decontamination and other environmental controls, as specified. Modified Level D protection may be assumed for work associated with excavation and handling of material, and other activities with a potential for exposure to contaminated materials.
- D. Implement environmental protection measures, site access and traffic control, and utility protection, air emissions control, dust control, drainage and erosion control, spill prevention and pollution control, and all other controls needed to protect environmental quality during the Work.

3.02 STOCKPILE MANAGEMENT

- A. Stockpiling shall be allowed only within the staging/stockpiling areas as indicated on the Technical Drawings.
- B. Stockpile covers shall be installed and maintained by Contractor during and through to completion of stockpiling activities.
- C. Any deficiencies in the stockpiling management noted by the Engineer or Contractor shall be immediately corrected to the satisfaction of the Engineer.

3.03 PROTECTION OF STRUCTURES

- A. The Contractor shall exercise great care when conducting its excavation, and stockpiling operations so as not to damage, undermine, or otherwise disturb the Owner's existing facilities.
- B. Any damage to the existing asphalt surfaces located on Boeing property resulting from operation of the Contractor's equipment shall be repaired to match the existing conditions at no additional cost to the Owner. The Contractor shall protect the pavement surfaces accordingly.
- C. The Contractor and Owner or Engineer shall review and verify condition of the existing Boeing Sheetpile Wall and other existing facilities adjacent to the work area prior to beginning work to ascertain existing conditions. The Engineer will provide as-built drawings of the Boeing Sheet Pile Wall. Any damage documented as a result of the Contractor's activities will be assessed to the Contractor for repair, at no additional cost to the Owner.

DIVISION 31—EARTHWORK

Section 312300—Excavation and Stockpiling

3.04 SITE CLEANUP AND MANAGEMENT OF DEBRIS AND WASTE MATERIALS

- A. The Contractor shall be responsible for preventing the offsite movement of all waste materials, spills, etc., resulting from the Work under this Contract, and shall be responsible for any consequences of any such offsite movement of material.
- B. The Contractor shall clean up soil tracked from the site onto public roadways on a daily basis or more frequently, as directed by the Owner.
- C. Periodically clean up wastes, debris, and leftover materials resulting from the earthwork activities. Clear the work areas of all debris and waste materials that may have accumulated during execution of the Work, and dispose of such materials in accordance with all applicable regulations.
- D. If soils underlying stockpiles are found (through sampling or visual observations by the Engineer) to be contaminated by the Contractor's stockpiling activities, the Contractor shall be responsible for remediating the contaminated soils to the Engineer's satisfaction at no additional cost to the Owner.

END OF SECTION

DIVISION 31 – EARTHWORK
Section 315200 – Steel Sheet Pile

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Install excavation support and protection systems, including the in-river enclosure and shoreline wall.
 - 1. Install excavation support and protection systems without damaging existing structures, pavement, overhead and subsurface utilities, and other improvements as described in Section 017600 – Protecting Installed Construction.
- B. Labor, materials, equipment, surveys, and services necessary for, or incidental to, the following:
 - 1. Driving the steel sheet piles, herein referred to in this specification as “SSP.”
- C. In addition to identifying the technical requirements related to this component of the project, this Specification also establishes the Engineer’s expectations regarding the SSP installation. Specifically, if field conditions limit the effectiveness of standard installation equipment and practices and/or preclude the advancement of the SSP to the design configuration, the Contractor will be required to implement one or more of the contingency measures identified in this Specification or an Engineer-reviewed alternate approach submitted by the Contractor.

It is the Contractor’s responsibility to thoroughly review the scope of the SSP installation, and the nature of the subsurface conditions that may be encountered during installation. The Contractor will provide the materials, equipment, and experienced workforce necessary to install the SSP consistent with the design.

If the Contractor examines the design configuration and existing subsurface information and determines that additional contingency measures are necessary beyond the methods typically employed to install SSP, the Engineer will be notified immediately of the site condition and the Contractor’s anticipated difficulties. The Contractor will be equipped and prepared to implement contingency measures if such difficulties are encountered during installation.

The Contractor will notify the Engineer if the implemented contingency measures do not result in design piling depth. The Engineer will provide the Contractor with direction for installing the difficult piling. SSP installations will not continue until the Engineer has determined the proper path forward.

DIVISION 31 – EARTHWORK
Section 315200 – Steel Sheet Pile

1.02 RELATED WORK DESCRIBED ELSEWHERE

Work related to this Section is described in:

Section 017600 – Protecting Installed Construction

Section 017423 – Decontamination

Section 022100 – Surveys

Section 354300 – Scour Protection

1.03 SUBMITTALS

A. Piling Installation Plan: Submit an SSP Installation Plan that presents the following:

1. Resumes for key Contractor/Subcontractor personnel, including project manager, on-site superintendent/foreman, on-site health and safety officer, and equipment operators.
2. Anticipated approach for installing the SSP to the design configuration, assuming that no significant installation difficulties are encountered. Contractor has option to conduct installation work in-water or upland and will be responsible for any necessary site preparation activities (minimal upland re-grading) necessary to facilitate SSP installation.
3. Details of proposed methods to drive piling to the depths indicated on the Technical Drawings and references to specific equipment makes/models and level of effort that will be used for SSP installation.
4. Equipment, including cut sheets, anticipated to be used for installation of the SSP. For the SSP installation, the Contractor will include certification that each pile hammer delivered to the site is suitable for the anticipated conditions, including impact energy, static weight, and overhead clearance.
5. SSP installation schedule that demonstrates that in-water construction work on the enclosure will be completed outside of the required “no-work” window (finish in-water work by no later than March 3, 2014).

B. Sheet piling Installation Contingency Measures:

1. For the piling, the Contractor will achieve the alignment and depths indicated in the design through the use of conventional pile driving methods or through the use of “best efforts.” If the piling cannot be installed to the design depth using the means and methods identified in the

DIVISION 31 – EARTHWORK
Section 315200 – Steel Sheet Pile

Contractor's Piling Installation Plan, the Contractor will notify the Engineer. Subsequently, the Contractor may participate in discussions with the Engineer regarding the potential implementation of one or more of the contingency measures identified below, and/or any Contractor-identified/Engineer-reviewed alternate approaches. The contingency measures or alternate approaches to be implemented (if any) will consider the specific circumstances of the installation (e.g., depth of refusal, location of piling relative to design depth, depth of the confining unit, measures that have already been implemented, and experience gained elsewhere within the site), and will be reviewed (through the use of written submittal) by the Engineer. The following contingency measures will be considered:

- a) Pre-Drilling: Pre-drilling using 6-inch-diameter augers to confirm the depth of the piling refusal, address/remove the obstruction, and/or further assess the nature of the obstruction. The pre-drilling will also be used in an attempt to open the obstruction by drilling through it (e.g., using a tricone bit). The spacing of pre-drilling location(s) will be determined in the field.
- b) Pre-Driving: Pre-driving using a small-diameter steel spud or a steel H-pile driven in location(s) where piling refusal has occurred. The spacing of the pre-driving locations will be determined in the field.
- c) Off-Set Installation/Realignment: If three consecutive sections of piling meet refusal at depths less than the design depth, coordinate with the Engineer to determine an off-set/realigned installation pattern.

C. Hammer

- 1. Select the proposed pile driving equipment, including hammers and other required items, and submit complete descriptions of the proposed equipment in accordance with this Section. Use of the proposed equipment is subject to review by the Engineer. Changes in the selected pile driving equipment will not be allowed after the equipment has been reviewed by the Engineer, except as specified and directed. No schedule accommodation will be made for Contractor-proposed changes to the equipment.
- 2. Pile driving hammers will be of the vibratory or impact type.
 - a) Contractor will use vibratory pile driving to extent practical, and this will be supplemented by impact pile driving as needed to achieve the requirements of design

DIVISION 31 – EARTHWORK

Section 315200 – Steel Sheet Pile

- b) Vibratory pile driving hammers will be sized appropriately by the pile driving contractor based on available subsurface information and specifications of piling to be driven. Proposed vibratory hammer type will be submitted as required in this Section.
- 3. For impact hammers, a pile cushion block will be required to protect the enclosure piling integrity.
- 4. In accordance with this Section, submit the following information for each impact hammer proposed:
 - a) Make and model
 - b) Ram mass weight (pounds)
 - c) Anvil mass weight (pounds)
 - d) Rated stroke (inches)
 - e) Rated energy range (foot-pounds)
 - f) Rated speed (blows per minute)
 - g) Steam or air pressure, hammer, and boiler and/or compressor (pounds per square inch [psi])
 - h) Rated bounce chamber pressure curves or charts, including pressure correction chart for type and length of hose used with pressure gage (psi)
 - i) Pile driving cap, make, and mass weight (pounds)
 - j) Cushion block dimensions and material type
 - k) Power pack description

PART 2 - EXECUTION

2.01 PREPARATION, INSTALLATION, AND MONITORING

A. Preparation

- 1. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during enclosure operations. Protection will, at minimum, meet the requirements presented in Section 017600 – Protecting Installed Construction.

DIVISION 31 – EARTHWORK

Section 315200 – Steel Sheet Pile

2. Provide adequate clearance of support and protection systems within work areas to allow for proper installation/construction of required site features. Where re-grading is necessary to support SSP installation equipment setup, it shall be limited to the area immediately adjacent to the location of the new shoreline wall and will in no way include handling of contaminated soils.
3. SSP
 - a) Determine piling layout and grade by survey. Survey will be performed in accordance with Section 022100 – Surveys.
 - b) Establish necessary piling lengths as determined in the design.
4. Aids to Navigational (ATON)
 - a) A Local Notice to Mariners (LNM) will be issued prior to in-water work
 - b) Necessary ATON will be installed as required by USCG and in coordination with Engineer prior to in-water work and remain the responsibility of Contractor until completion of SSP installation. Contractor should assume for purposes of this Bid that nothing will be required beyond mere USCG notification.
5. Install scour protection as described in Section 354300 – Scour Protection.
6. Damages to adjacent structures caused by SSP installation will be promptly repaired at the Contractor's expense.

B. Installation

1. The Contractor will identify the presence of underground utilities or other obstructions. Underground utilities located within the pathway of the proposed steel piling will be removed, relocated, protected, or abandoned to facilitate installation of the steel piling.
2. The Contractor will remove and place in stockpile areas any material that halts the driving of SSP prior to continuing the driving, or will develop an alternate methodology, reviewed by the Engineer, to complete installation of the SSP.
3. Plumb enclosure piling as required on the Technical Drawings.
4. Drive SSP with equipment suitable for the conditions encountered. The method and equipment selected will deliver the necessary energy to drive the piling to the design depths shown on the Technical Drawings and will

DIVISION 31 – EARTHWORK

Section 315200 – Steel Sheet Pile

minimize damage to each end of SSP. Employ suitable procedures to prevent damage to pile tops and joints (e.g. use of pile cushion block).

5. Monitor, prevent, and correct any tendency of SSP to bend (less than or equal to 1.0 inch from vertical), twist, or rotate, and to pull out of the interlock. Take reasonable care throughout the installation process so that SSP do not declutch. Maintain the integrity of each pile and interlocked joint during and after driving.
6. SSP damaged or driven outside the above tolerances will be replaced. Immediately pull and replace any SSP ruptured in the interlock or otherwise damaged during driving.
7. The Contractor will take necessary precautions so that adjacent piles do not penetrate deeper during pile installation.
8. The Contractor will pull any piling that is known to have pulled out of the interlock or is suspected of having tip or interlock damage.
9. Splicing is not permitted unless reviewed by the Engineer.

2.02 REMOVAL

- A. The three in-river enclosure walls (Option 1) or north/south extensions of the shoreline wall (Option 2) will be removed only upon notification from Owner (projected notification between August 20, 2014 and September 20, 2014) in a manner that minimizes damage to the members and resuspension of sediments. It is possible that this activity will be undertaken by the Owner. Notification of such will be provided by Owner as soon as possible.
- B. SSP will be decontaminated according to the requirements set forth in Section 017423 – Decontamination, at the time of removal.
- C. Reusable piles will be stored in a location specified by the Engineer and in a manner that prevents damage. At a minimum, the members will be supported off the ground and separated from adjacent members by blocking.

END OF SECTION

DIVISION 35 – WATERWAY AND MARINE CONSTRUCTION

Section 354300 – Scour Protection

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Work under this Section will include, but is not necessarily limited to, supplying scour protection materials according to the requirements identified in this Section and in the necessary quantities to achieve the target thickness and coverage areas. This will include activities to procure materials, transport, and off load materials at the site.
- B. Materials required for scour protection will apply to Option 1 only, and will be placed along the in-river enclosure. Material will consist of a granular sand layer proposed by the Contractor.

1.02 REFERENCES

- A. American Association of State Highway and Transportation Officials. 2004. AASHTO T 88 – Standard Method of Test for Particle Size Analysis of Soils, 21 pp.

1.03 SUBMITTALS

- A. A Scour Protection Plan will be submitted to the Engineer for review. The Scour Protection Plan will include the following information:
 - 1. Material documentation, including identification of each proposed scour protection material (with a map documenting the origin of each material) and description of material samples and characterization data for the granular material (physical testing), with comparison to specification criteria demonstrating that the material meets the Specifications.
- B. The Contractor will submit to the Engineer for review:
 - 1. The name, location, and quantity of each source and type of scour protection material proposed, including a sample of the sand. The Contractor will provide necessary coordination with proposed source(s) to provide samples to the Engineer.
 - 2. The Contractor will provide the gradation for proposed granular materials. If such analyses or other indicate unacceptable physical characteristics, the Engineer will reject the use of granular materials from the proposed source(s), and the Contractor must identify and submit sample(s) from another material source.

DIVISION 35 – WATERWAY AND MARINE CONSTRUCTION

Section 354300 – Scour Protection

PART 2 - PRODUCTS

2.01 MATERIALS

A. Sand

1. Material specified as "Sand" on the Technical Drawings will have a maximum diameter of 4.75 millimeters (mm), a D_{50} of 1 to 2 mm, and a D_{10} of 0.075 to 0.425 mm.

PART 3 - EXECUTION

3.01 SHIPPING, HANDLING, AND STORAGE

- A. The Contractor is responsible for shipping, unloading, handling, and storing scour protection materials.

3.02 INSTALLATION

A. Sand

1. The Contractor will place sand prior to enclosure pile installation at the rate of 16.7 cubic yards per 100 square yards (approximately 6-inch-thick layer). The Contractor will distribute the sand in a relatively uniform layer approximately 5 feet wide along the perimeter of the cofferdam wall. A layer between 4 and 6 inches thick is acceptable.
2. Contractor will place sand in a controlled manner that minimizes sediment resuspension to the extent practicable.

END OF SECTION